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THE CAROLINA JOURNAL OF PHARMACY

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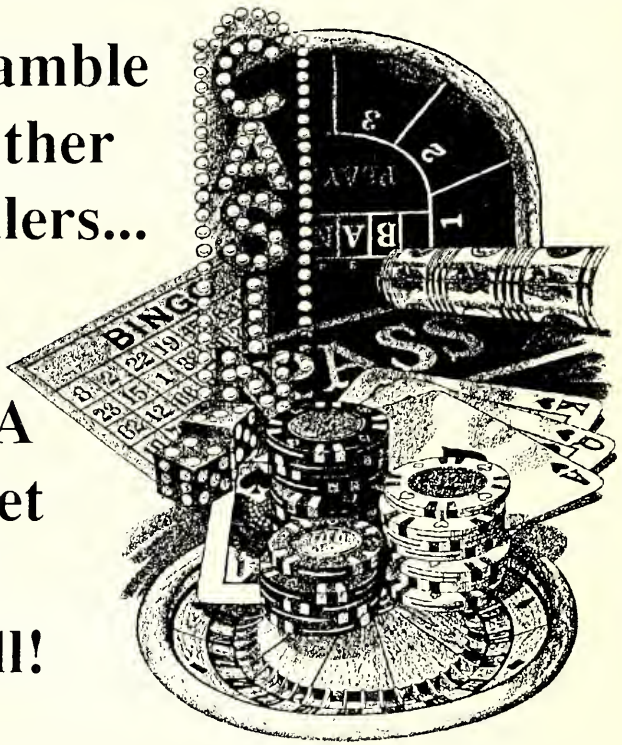

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DEBORAH L. HOLLINGSWORTH WAS ONE OF FOUR PHARMACY STUDENTS CHOSEN TO PARTICIPATE IN THIS 12-WEEK SUMMER PROGRAM, COORDINATED BY THE NATIONAL PHARMACEUTICAL COUNCIL *(NPC)* AND CO-SPONSORED BY THE AMERICAN PHARMACEUTICAL ASSOCIATION *(APhA)*.

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NORTH CAROLINA PHARMACEUTICAL ASSOCIATION

Officers

President
W. ROBERT BIZZELL
3423 Buena Vista Court
Kinston, NC 28501
919•527•6929

President Elect
JOSEPH A. EDWARDS JR.
2025 ST. MARY'S ST.
RALEIGH, NC 27608
919•833•0557

Past President
HENRY L. SMITH
P.O. Box 147
Farmville, NC 27828
919•753•7111

Journal Staff

Editor and Publisher
ALFRED H. MEBANE III

Associate Editor and Advertising Coordinator
TERRI M. LITTLE

Editorial Assistants
ERIE C. COCOLAS
MICHELLE L. MARTIN

Business Manager
BETSY MEBANE

NCPhA Office
P.O. Box 151
Chapel Hill, NC 27514
919•967•2237 or
800•852•7343

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INTRODUCING THE NCPHA CANDIDATES FOR OFFICE

Ballots for the NCPhA's 1993 elections will soon be mailed to all Association members. The slate consists of two candidates for president-elect and five candidates for three member -at-large positions on the NCPhA Executive Committee.

For the three member-at-large positions, the three candidates who receive the greatest number of votes will be elected to a two-year-term.

NCPhA members will receive their official ballot in early March. Ballots are to be returned within 30 days of receipt. Ballots will be counted by the elections committee in early April and results published in an upcoming issue of *The Journal.*

Successful candidates will be installed in their new offices in May of 1994 during the 114th NCPhA Annual Convention in South Carolina.

The 1992-93 NCPhA Nominating Committee presents the following slate of officers which was approved by the membership at the 113th Annual Convention in May of 1993.

Biographical data are present for each candidate. Candidates for positions on the NCPhA Executive Committee were asked to submit a response limited to 150 words or less on: **"How can the NCPhA be most effective in state and federal health care reform?"**

Members of the 1992 Nominating Committee were: Chairman, W. Robert Bizzell, LaRue Dedrick, Jonathan A. Hill, Lazelle A. Marks, John A. Mitchener, Thomas R. Thutt, and Joy Southerland.

FOR PRESIDENT-ELECT

one to be elected

W. Keith Elmore
Wilmington

Keith Elmore is president of Bellamy Drug Company in Wilmington.

Elmore has been a member of NCPhA for 21 years. Currently, he serves on the Executive Committee, Public Health Committee, Resolutions Committee, and is Chairman of the Policy and Procedures Committee of NCPhA.

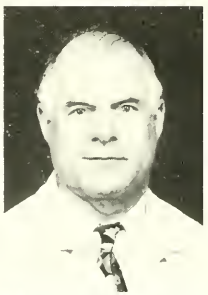
He is past second vice president, third vice president, and member-at-large of the NCPhA Executive Committee. He has also served NCPhA on the following committees: Nominations, Community Pharmacy, Social & Economic Relations, and Membership Development.

Elmore is a member of NCSHP, the New Hanover County Pharmaceutical Society, and the New Hanover County Board of Health.

"How can the NCPhA be most effective in state and federal health care reform?"

Webster defines the word "reform" in two ways: as a noun, it means "an improvement,"

as a verb, it means "to make better by removing faults and defects." Therefore, health care "reformed" is health care "improved" and "made better." Pharmacists "reform" health care every day because we continually improve and make better our patients, our profession and our community. This basic fact must be voiced at all levels of the discussion of health care reform, and the NCPhA, as our state professional association, must assure pharmacy representation on any entity dealing with that discussion. The elected leadership and the Executive Director of the Association should formulate positions and organize their presentation with input from the membership and close cooperation with other state and national pharmacy organizations. In the legislative forum where health care reform will be debated, the NCPhA will be most effective in delivering pharmacy's message by encouraging and supporting with educational and financial resources the organized political activity of individual pharmacists, not only as lobbyists, but as holders of public office as well.•



Mitchell W. Watts
Concord

Mitchell W. "Mickey" Watts is the owner of Medical Center Pharmacy in Concord.

Mickey is a NCPhA Life Member and a member of the Executive Committee. He has been a member of the NCPhA for 28 years. He is a past chairman of the NCPhA Employee/Employer Relations Committee and has served on the following additional committees: Third Party, Nominations, Mental Health, and Community Pharmacy. He is also a member of the NCPhA's Academy of Pharmacy and has represented NCPhA on the board of directors of the Pharmacy Foundation of N.C. He is a member of NARD, NACDS, an officer of Kappa Psi , and is currently serving as the director of PharmPAC. He has been honored by NCPhA with the Don Blanton Award and the Poison Prevention of the Year Award.

In addition, Mickey is involved in civic activities in the Concord community.

"How can the NCPhA be most effective in state and federal health care reform?"

One of the pressing issues facing pharmacy in North Carolina is division within. NCPhA must serve the profession and business of pharmacy by becoming a unifying force to all segments of pharmacy, including retail (both chains and independents), wholesale, hospital, education and manufacturers. We have learned that when we speak with one voice we are heard by third party payors, insurance companies, large employers and especially our legislators and government officials.

The Association must identify issues and concerns; develop a strategy to confront these concerns and coordinate the activities, when applicable, of the hospitals, the schools, the Retail Pharmacists Association, NC Merchants Association and PNNC in an effort to protect and defend pharmacy in North Carolina.

In order to achieve the appropriate position of leadership, the officers and staff must develop both short and long range goals and demonstrate an ability to accomplish these goals. Only by being a truly influential and creditable organization can we expect our membership to grow and be supportive of the Association. We must articulate the needs of pharmacy in a manner which demonstrates that we are on the cutting edge of pharmacy development in all segments of pharmacy from retail to education. We must listen to our members and use their input to develop our goals, sucessfully achieve our goals and effectively communicate our success.

Working together we can keep North Carolina and the NCPhA a leader in pharmacy as it helps prepare the membership to better deliver the highest pharmaceutical care available to the citizens of North Carolina and get paid for these services.•

FOR MEMBER-AT-LARGE

three to be elected for a two-year term

Randy G. Ball
Wake Forest

Randy Ball is a Community Pharmacist in Wake Forest. He has a diversified professional background having worked as a Pharmacist, a Consultant with Alcohol and Substance Abuse, and recently extended his practice to Geriatric Pharmaceutical Care as a consultant to nursing and rest homes.

Randy is an active member of NCPhA, currently chairman of the Third Party Committee, and member of the Resolutions Committee. His service to NCPhA includes the Retail Community Pharmacy Committee, Membership Development, and Constitution & Bylaws Committee. In 1990, NCPhA honored Randy as North Carolina Young Pharmacist of the Year. Randy also is a member of the Wake County Pharmacy Association and has served on its Executive Committee.

"How can the NCPhA be most effective in state and federal health care reform?" "Health Care Reform" has progressed from a nebulous idea to mandatory change. Although reform has been proposed, what this reform will be is yet undetermined. Some may perceive reform as a hurdle; yet I perceive reform as a window of opportunity to gain economically and to enhance the image of the Pharmacist as a primary care giver to patients. It is essential for NCPhA to take a proactive stance, having an effective role in shaping both Federal and State Health Care Reform. NCPhA must represent Pharmacists not as dispensers, but as integral managers of patient care. To do this, the NCPhA must portray its membership as health care providers who are willing to assume the responsibility to interface with physicians in the selection of rational, cost effective drug therapy.

During this time of reform, membership anticipates the NCPhA to answer our concerns with unprecedented steps to advance the ability of pharmacists to provide pharmaceutical care and to be compensated for their cognitive service. We must remain unified in our efforts to effect Health Care Reform. •

Charles L. Hill
Charlotte

Charles L. "Roy" Hill is a 1988 graduate of the UNC School of Pharmacy and is a pharmacist for Sentry Home Health Care in Lincolnton. Roy has been a member of the NCPhA for 8 years and has been active in the Mecklenburg Pharmaceutical Society. He has served on several committees, including his current positions on the Legislative Committee and the Third Party Committee (of which he is past chairman). Roy is the co-chairman of the PharmPAC Board of Directors and is a 1992 Graduate of the S.K.B./APhA APPLE Pharmacy Management Program. He has also been a facilitator in Patient Consultation Workshops. Roy was the 1993 NCPhA Distinguished Young Pharmacist Award Recipient.

"How can the NCPhA be most effective in state and federal health care reform?"

President Clinton's Health Care Reform, and the general push for medical reform by both business and public office statewide, offers pharmacy exciting new challenges in the coming months and years. While some pharmacy issues are addressed in these reform packages, the pharmacist's and pharmaceutical care's roles are conspicuously absent from the plans. This leaves the NCPhA two vital fronts to face. First is the continued establishment of the critical role of the local pharmacist in drug therapy and the profound importance of pharmaceutical care in a patient's overall health.

How will NCPhA do this? 1) We must continue our grass-root efforts to lobby locally, statewide and federally. WE must, through the coordination of the association, continue to stand up for our financial and professional interests. 2) NCPhA must serve as a facilitator to bring all areas of pharmacy together to challenge these issues head on. NCPhA must seek active participation of all pharmacists in the association and it's efforts. 3) The association must play an active role in providing quality education to pharmacists so we may be the best health care professionals we can in our specific areas of the profession. 4) NCPhA must help define to the public our roles in their health care lives. 5) NCPhA must be the ACTIVE voice for pharmacy.

Basically we must protect and fortify you as individual pharmacists and build upon the profession of pharmacy.•

F. Michael James
Raleigh

Mike James is the President of Person Street Pharmacy, Inc., James and Associates in Raleigh and Professional Pharmacy, Inc. in Wilmington. He has been a member of NCPhA for over twenty years and has served on various committees, including the State Legislation Committee, of which he is currently chairman. He is a member of NARD, Fellow of the American College of Apothecaries, North Carolina Retail Pharmacy Association and NC PharmPAC. He also holds membership in the Wake County Pharmaceutical Association, NC Retail Merchants' Association and the Greater Raleigh Chamber of Commerce. He was appointed by Governor Hunt to the State Health Coordinating Council to serve until November, 1996.

"How can the NCPhA be most effective in state and federal health care reform?"

The answer is very simple. Every member of NCPhA must get involved in the legislative process on a state and federal level. Pharmacists of North Carolina can make a difference in the legislative process on a state and federal level. Pharmacists of North Carolina can make a tremendous difference in the legislative process. "Freedom of Choice" (SB 885) is a perfect example of a concentrated effort by a great many pharmacists to educate their legislators.

To state and federal legislators, the practice of pharmacy is a very complicated issue. The NCPhA holds a singular position with legislators and should recognize its given ability to educate both state and federal legislators in all facets of pharmacy. The Health Security Act is an extremely complicated document and has already seen many changes occur just in the short time since release. The NCPhA should be constantly monitoring these as well as future changes in an effort to be in the position to alert all members to contact their representatives and explain points adversely affecting pharmacy from the federal level.

As it appears now, the North Carolina State legislature will play a very extensive role in determining how the Health Security Act will actually be mandated in our state. With that in mind, the NCPhA must be prepared to step in and support pharmacy at every level. This can be done through educating the members in a proper and timely manner so that they in turn can educate their state legislators. Unless the

NCPhA member understands the problem and the solution, it is impossible for that member to confidently contact and educate his or her legislator. Therefore, the NCPhA can be most effective in state and federal health care reform by guiding and educating the members and urging them to contact their legislators.

The NCPhA should have a pro-active membership led by a forward-thinking leadership which understands that most of the guidelines we must follow each day are implemented through the legislative process. If we do not understand this process, we will not be practicing pharmacy in the future as we know it today.•

Robert L. Lewis
Charlotte

Robert L. "Bob" Lewis is a pharmacist and owner of Avondale Pharmacy in Charlotte. Bob is a Moore County native and graduate of the UNC School of Pharmacy. He has been a member of the Mecklenburg Pharmaceutical Society and NCPhA for many years and has served in various capacities. Bob was on the original volunteer team that serviced Poison Control for years in Mecklenburg County.

Presently, Bob is Chairman of the NC PharmPAC, a director of the Board of PNNC, and is a consulting member of a drug utilization review team. He is also a member of the American Pharmaceutical Association and the NARD, attending several annual Legislative Conferences to lobby for pharmacy support at the national level. Bob is a member of the North Carolina Retail Pharmacy Association.

"How can the NCPhA be most effective in state and federal health care reform?"

The time for NCPhA to assume its role as a leader in the healthcare reform of North Carolina is NOW. We must become proactive in recommending the changes in healthcare as it relates to pharmacy rather than reacting to the self-interest proposals of the drug manufacturers, insurance companies, HMO's, mail order houses and hospital administrators.

The changes in pharmacy brought on by healthcare reform will affect ALL pharmacists, and it is crucial that we stand together. We must not allow our energies to be divided into separate areas of practice and localities. The 1993 Pharmacy of Choice Bill is a perfect example of what pharmacists can accomplish by joining forces to serve our common interests. Through teamwork initiated by the NC Retail Pharmacy Association, the Bill was passed by a wide majority. This unity of efforts by members of pharmacy organizations can be the start of a cohesiveness that will serve the common interests of all by getting healthcare reform beneficial to each field of pharmacy.

I propose that NCPhA membership have quarterly forums and encourage representation from the various fields of practice. Specific goals would be to:

- Encourage attendance by all pharmacists in North Carolina to share what is happening in their practice setting, discuss solutions, and work together to see that healthcare reform serves our common interests.
- Provide training on becoming political activists for pharmacy issues at the local, state and national level to educate legislators on our issues and seek their support.
- Learn how to use our "most trusted profession" image to encourage support by our customers on legislative issues.
- Insist that the leadership and administration of NCPhA prioritize the critical health care reform issues of discriminatory pricing, inequities by insurance companies and fair reimbursement for services.

We need the involvement by all pharmacists during these changing times, and I would appreciate your support to help bring it about."

Michael Overman
Asheville

Michael Overman is a 1972 graduate of the University of North Carolina School of Pharmacy and a member of Phi Delta Chi fraternity. Mike is the owner of Lord's Drug Store in Asheville, N.C. and President of MABCO, Inc. He is a member of the NCPhA as well as the North Carolina Retail Pharmacists Association and has served on committees for the NCPhA. Mike is a member of the Western North Carolina Pharmaceutical Association and served as President in 1988. Mike is a charter member of the UNC School of Pharmacy Alumni Association and served as a member of the board of directors of the Alumni Association. Mike is co-chairman of the Western North Carolina Group Against Smokers Pollution (GASP) and has been recognized for outstanding community leadership by Buncombe County Project ASSIST. Mike is Buncombe County's longest running sponsor of a youth athletic league and he is active in various other church and community service organizations.

"How can the NCPhA be most effective in state and federal health care reform?"

The NCPhA represents pharmacists from various practice areas such as independents, chains, hospitals, industry, research, and education. These disciplines will have different priorities and goals when it comes to reforming the state and federal health care delivery systems. In trying to serve each of these constituencies, the NCPhA can best serve to help identify a common goal and then direct the association's resources toward achieving that goal.

I believe our common goal is the improvement of patient outcomes while at the same time enhancing each of our respective roles, whether they be in community practice, the hospital, the laboratory, classroom, or manufacturing plant.

By becoming a resources bank, the NCPhA will be able to bring the various factions of our profession together. Providing this leadership will give us direction and unity of purpose to further enhance our image not only to ourselves but to the public whom we serve.

I want to thank the nominating committee for considering me for this position and if elected I will work very hard for our association.•

☛ Retain this important information about your NCPhA candidates so you can refer to it when your ballot arrives in the mail. Ballots will be mailed to all NCPhA members who are eligible to vote. You will receive your ballot a few days after receiving *The Journal.*

1993 Recipients of the "Bowl of Hygeia" Award

Wyeth-Ayerst Laboratories takes great pride in continuing the "Bowl of Hygeia" Award Program developed by the A. H. Robins Company to recognize pharmacists across the nation for outstanding service to their communities. Selected through their respective professional pharmacy associations, each of these dedicated individuals has made uniquely personal contributions to a strong, healthy community which richly deserve both congratulations and our thanks for their high example.

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WELCOME NEW NCPHA MEMBERS!

The following have recently became members of the NCPhA. They join more than 2,600 colleagues in the Association who are committed to advancing the interests of pharmacy in North Carolina.

Michael David Allen, *Rocky Mount*
Stephen P. Letrent, *Chapel Hill*
LeAnne Kennedy, *Winston-Salem*
Ruby A. Crummie, *Fayetteville*
Cecil M. Davis, *Spruce Pine*
Kathy Gay, *Nashville*
Judith A. Gunnarson, *Salisbury*
Connie L. Roberts, *Hillsborough*
Wm. Thomas Ward, *Asheboro*
Lydia Woodard, *Princeton*
David G. Boyd, *Wilmington*
Brent C. Lawson, *Chapel Hill*
H. Dan Hardy Jr., *Greenville*
Sandra H. Hak, *Greenville*
Julie Ann Gouveia-Pisano, *Raleigh*
David Hester, *Lumberton*
Lisa B. Jackson, *Greenville*
Nicole Tyner Karls, *Atlantic Beach*
Suzanne Morton, *Raleigh*
Crystal Patterson, *Shelby*
Ellen Shipp Saleeby, *Vanceboro*
Julie Sherrill, *Troutman*
Rebecca Ann Smith, *Carrboro*
Louis Flacks, *Yorktown Heights NY*
Jeannine S. McCune, *Chapel Hill*
Johnny Dale Phillips, *Charlotte*
Caroline M. Ayers, *Winston-Salem*
Scott Dinkins, *Monroe*
Helen Dinkins, *Monroe*
Renee M. DePreta, *Raleigh*
J. Elizabeth Early, *Fayetteville*
Joyce E. Grubb, *West Jefferson*
Melissa D. Hartis, *Elizabeth City*
Craig S. Herman, *Raleigh*
Sheri Mitten, *Cary*
Dawn Neighbors, *Benson*
Sonia Shaw, *Glade Valley*
Kelly Sevier, *Greensboro*
Richard M. Stigliano, *Sharon PA*
Tammie L. Thomas, *Fayetteville*
Tim Clark, *Winston-Salem*
Michelle Townsend, *Boone*
Rajesh Vyas, *Charlotte*
Janet Young, *Concord*
Ellen A. Zigmont, *Carrboro*
Jennifer Burch, *Durham*
Lori C. Dodson, *Raleigh*
Laura Gore, *Tabor City*
Sonya M. Nance, *Evergreen*
John W. Polk, *Hampstead*
Jay Roten, *Boone*
John W. Roten Jr., *Boone*
Marcia W. Anderson, *Chapel Hill*
Randall B. Angel, *Chapel Hill*
Laura L. Everett, *Mebane*
Robert Putnam, *Elizabeth City*
Phil Sasser, *Cary*
Annah Wells, *Raleigh*
Jim LeCroy, *Wilmington*
Caroline Hodges, *Garner*

NORTH CAROLINA CHOSEN TO HOST APHA/NCSPAE EXECUTIVE RESIDENT

In late January, the North Carolina Pharmaceutical Association staff expanded with the addition of Susan C. Winckler, the American Pharmaceutical Association/ National Council of State Pharmacy Association Executives (APhA/NCSPAE) Executive Resident in Association Management. The NCPhA was chosen to host the three month state rotation from proposals submitted by state pharmacy associations.

Winckler will spend three months at NCPhA, participating in most association activities, including various committee meetings, editorial responsibilities, legislative functions, and meeting planning. The three month rotation with a state pharmacy association is a key component of the one year Residency, designed to provide the resident with experience in the operations of a pharmacy association at the state level.

Prior to accepting the APhA/NCSPAE Executive Residency in July, 1993, Winckler worked as a pharmacy systems consultant for the Paramax Corporation, a subsidiary of Unisys, where she supervised the implementation of a prior authorization program for Medicaid prescription medication coverage in Iowa. Her experience also includes a three month internship with the Iowa Pharmacists Association, and work with two community pharmacies in Iowa. Winckler is a graduate of the University of Iowa College of Pharmacy.

Susan C. Winckler

The APhA/NCSPAE Executive Residency is a one year, post graduate residency designed to develop well-qualified pharmacists to assume management positions in pharmacy-related organizations. The program is conducted at the American Pharmaceutical Association in Washington, D.C. and the selected state pharmacy association headquarters.

ATTENTION PHARMACISTS LICENSED 50 YEARS OR MORE

If you have been a pharmacist for 50 years or more—licensed in 1943 or earlier—you are eligible for induction into the 50-plus Club. Inductees will be recognized at the Awards Session on Sunday, May 22, 1994, during the 114th NCPhA Annual Convention at the Myrtle Beach Hilton in South Carolina. Friends and family are welcome.

Contact the NCPhA office if you qualify for "membership" into this elite group of pharmacists who have served their profession for 50-plus years. Call 800-852-7343.

TWO NCPHA MEMBERS ELECTED TO APHA-APPM POSITIONS

Betty H. Dennis, clinical associate professor and director of continuing education at the University of North Carolina School of Pharmacy, has been elected Member-at-Large of the Administrative Practice Section of APPM.

Dennis is a past-president of NCPhA, having served in 1991-1992 as the first woman president. She is also active in the American Association of Colleges of Pharmacy (AACP) and the American Society of Hospital Pharmacists (ASHP), and serves as an advisor to the UNC chapter of Kappa Epsilon, a pharmacy fraternity. Dennis received her bachelor's, master's and doctor of pharmacy degrees from the UNC School of Pharmacy.

Albert F. Lockamy, Jr., a pharmacist-manager at Revco and the Vice-President of the North Carolina Board of Pharmacy, has been elected 1994-1995 president-elect of the American Pharmaceutical Association (APhA) Academy of Pharmacy Practice and Management (APPM).

A graduate of the University of North Carolina, Lockamy is an adjunct associate instructor for the university's area health centers. He is a past-president of NCPhA, an APPM Fellow, a member-at-large of the APPM Executive Committee, and represents the interests of pharmacists on the North Carolina Medical Care Commission.

The APPM represents pharmacists in practice and management through the following sections: Administrative Practice, Clinical/Pharmacotherapeutic Practice, Community and Ambulatory Practice, Institutional Practice, Nuclear Pharmacy Practice, and Specialized Pharmaceutical Services.

NORTH CAROLINA PHARMACISTS SERVE ON NARD STANDING COMMITTEES

The following North Carolina pharmacists have been chosen to serve on Standing Committees for NARD:

Thomas R. Thutt, Kinston
Consumer Affairs & Public Relations
Jonathan A. Hill, Sr., Charlotte
Home Health Care Pharmacy Services
Romas T. White, Raleigh
Long-Term Care Pharmacy Services
Victor J. Pendergrass, Gastonia
Management
Johnny N. Stacy, Boone
Multiple Locations
Forrest M. James, Raleigh
National Legislation & Government Affairs
Richard Gill Ripley, Elkin
Professional Relations
Ralph Hunter, Richlands
Third-Party Payment Programs
W. Whitaker "Whit" Moose, Mt. Pleasant
NARD Executive Committee and Insurance Committee

COUNSELING PATIENTS IN THE 90s: PHARMACISTS ARE MAKING IT WORK

While talking about medicines is a clear mandate for pharmacy in the 90s, many pharmacists face significant challenges: developing the communication skills and messages to deliver information effectively, finding the time to counsel, and working cooperatively with other members of the health care team. Based on recent pharmacy literature and program innovations, NCPIE has some practical ideas to help pharmacists integrate OBRA counseling requirements into the way they do business.

Counseling: Easy As 1 - 2 - 3

Most pharmacists say they want to spend more time counseling patients. But in a busy pharmacy, time is at a premium, and counseling has to be efficient as well as effective. The National Council on Patient Information and Education recommends a focused, fundamental three-step approach:

1. Ask patients three questions
   - What did your doctor tell you this medicine is for?
   - How did he or she tell you to take it?
   - What did the doctor tell you to expect?

These questions come from the Indian Health Service, whose pharmacists use them to determine the patient's existing level of knowledge. With this baseline, the pharmacist can target counseling to the patient's greatest information needs. This approach also fosters continuity between physician and pharmacist care.

- The name of the medicine and what it is supposed to do.
- How much of the medicine to take, how often to take it, and for how long.
- Possible side effects and what the patient should do if they occur.
- Whether new medicines will work safely with other medicines the patient is taking.
- Foods, beverages, other medications, or activities to avoid while taking the medicine.
- Written materials on the medicine that the patient may take home.

These six points, which NCPIE has used in educational campaigns for over 11 years, are the minimum information patients need to take medicines safely and effectively. OBRA regulations also include some additional topics: techniques for self-monitoring of drug therapy, proper storage, refill information, and action to be taken in the event of a missed dose.

The Maryland Pharmacists Association (MPhA) estimates that "normal" pharmacy counseling, including providing instructions for use and asking about drug allergies, takes less than one minute—and covers five of OBRA's eight counseling topics. Thus, the patient-pharmacist interaction does not have to be lengthy to be effective.

3. Have patients repeat information for use in their words. Ask if they foresee any problems in taking the medicine as prescribed.

This interactive step ensures that patients understand the information you and the doctor have provided, and it anticipates potential problems. If patients do raise concerns, your help and advice for overcoming barriers may prevent noncompliance.

Counseling in Special Situations

In addition to this core information, special patient groups may have additional counseling needs. For example, a pharmacist may need to use signing or a note pad to communicate with a deaf patient. Verbal instructions without visuals would be necessary for blind patients. AIDS patients often present a unique challenge. They suffer from a stigmatized disease, they may take many medications combined with non-traditional therapies, and they are often very knowledgeable about their disease and its medicines. The opposite problem is more common—patients with low literacy skills or poor English language skills. The APhA recommends the use of the US

Pharmacopeial Convention's pictogram symbol set to help ensure good communication in these situations. Sensitivity to cultural diversity is also very important.

Another patient group that needs special medicine counseling takes about 30 percent of all the medicines pharmacists dispense: the elderly.[1] Estimates suggest that older Americans will soon be taking as many as 50% of all prescribed medicines as today's baby boomers add to the aging population. Yet impaired vision, hearing, and aging stereotypes often get in the way of good medicine communication. Studies also show that Americans over age 65 are less likely to ask questions of the pharmacist and less likely to be satisfied with the quality of information they receive.[2] Tips for counseling older patients appear in the box below.

Finding Time For Counseling

It's a typical day in a pharmacy. Pharmacists are busy filling prescription orders as the line of patients grows longer. Deliveries arrive, the register needs tape, the phones are ringing, and the computer goes down. How can pharmacists fit counseling into this hectic picture?

In addition to making counseling efficient using the 1-2-3 approach described above, pharmacists are finding new ways to manage their schedule more efficiently. Here are some of their ideas.

- Delegate non-pharmacy chores (eg, stocking, mail-opening, completing third party forms) to a well-trained and trusted clerk. This can leave you free to make the counseling offer in person to each patient. When the pharmacist simply hands medicines to patients instead of a clerk, compliance is increased by 25%.[3]
- Set aside time at the beginning or end of the day for non-patient activities you must handle.
- Set priorities among your activities, and do the most important jobs first.
- Set goals for each day. List them on a 3 x 5 card placed where you can see it, and follow your plan.
- Ask a pharmacist you respect to observe your operation and suggest time-saving ideas he or she uses. Then return the favor with another colleague.
- Make more use of well-trained technicians in dispensing activities. This leaves you more time for talking to patients.
- Keep a file of clear and easy-to-understand reference materials for patient education. In addition to making education more effec-

Counseling the Elderly: Communication Tips*

- Evaluate each person individually. Some older people have impairments that hinder information exchange.
- Make sure your patient medication history is complete and check all new prescriptions for possible interactions with existing medications.
- Offer to conduct a "brown bag" review of all the patient's Rx and OTC medicines.
- Speak up. Pause briefly between sentences.
- Speak slowly. Make eye contact.
- Follow oral counseling with a printed summary sheet in large type, black on white preferred.
- Repeat your instructions to family caregivers, if appropriate.
- Show empathy and caring, but not sorrow. Maintain close physical contact.
- Offer compliance aids, such as medication organizers and calendars, for patients taking more than one medicine.
- Provide seating in the waiting area.

** Adapted from: Gossel T. A. et al. Drug Action in the Elderly and Patient Counseling. The Kentucky Pharmacist. November 1992.*

Let's Talk Better: Five Techniques Improve Medicine Communication

According to an analysis of 102 studies of medicine education techniques, interpersonal communication has the greatest impact on patients — greater than group education or behavior modification programs. While the review did not find any "model" approach, results suggested that five techniques can improve medicine teaching:

1. *Individualization:* the chance for patients to have questions answered or teaching geared to their rate of learning. Methods that allow for individualization include individual counseling, interviews at the end of sessions and discussion periods during group sessions.

2. *Feedback:* information given a patient on how much progress the patient is making in a program. Feedback facilitates learning by showing the extent to which it is occurring.

3. *Facilitation:* the process by which means are provided to enable a patient to act. Facilitation includes, for example, the provision of compliance aids like unit-dose containers, and adjustment of a regimen to suit a patient's meal-times and other personal arrangements.

4. *Reinforcement:* any part of an intervention (other than feedback) designed to reward compliance. Reinforcement is a powerful technique to encourage persistent compliance.

5. *Relevance:* the degree to which an intervention is designed to meet the needs and experience of patients. To be effective, an educational program should be geared to the knowledge, reading level, visual acuity, beliefs circumstances and prior experience of the patients.

For an in-depth look at the five principles of communication, see, "Meta-Analysis Points Way Toward More Effective Medication Teaching Practice," Green LW and Mullen PD, Promoting Health. Vol. 6, No. 6, 1985.

tive, pictures can save time by avoiding the need for lengthy verbal explanations.

- Enroll patients in appropriate patient support programs sponsored by manufacturers.
- Use the computer as an "assistant." Automated patient records; systems that evaluate the potential for duplication, interactions, and dosage appropriateness; and medicine-specific patient education materials are all available to help. Update patients' computer records right after you speak to them.
- Organize an area of the counter for patient education and keep all needed materials handy. Don't waste time searching through piles of papers to find what you need. Display compliance aids and reminders near the register.
- Keep a log of pharmacy activity for a couple of weeks to determine patterns of busy times. Then try to schedule patient visits for renewals during slower periods—or ask some patients to call in their renewals in advance so you can spend more time with them when they are in the pharmacy. In a recent survey, a majority of patients said they would be happy to come to the pharmacy at slower times, barring conflicts; it's to their advantage as well as yours to avoid long lines.
- Learn and practice communication skills. Practice is the best way to gain counseling confidence and efficiency.

Endnotes

1. Jeffries, JA, Gossel, TA, Wuest, JR, "Drug Action in the Elderly and Patient Counseling," The Kentucky Pharmacist, November 1992.

2. A Survey on the Need for a Prescription Drug Benefit Under the Medicare Program, prepared for the American Association of Retired Persons by Chilton Research Services, June 1992.

3. Schering Report XIV, "Improving Patient Compliance: Is There a Pharmacist in the House," Schering Plough, 1992.

Patient Brochures from NCPIE

These six brochures are excellent for display racks, patient handouts, health fairs, community presentations and counseling areas. Choose one for every patient's need.

1. **"A Consumer's Guide to Prescription Medicine Use"** — designed especially to reinforce your medication counseling. Lists important questions patients should ask; provides guidance about what information health providers need to know before prescribing or dispensing; and encourages patients to speak up about their medicines.

2. **"A Parent's Guide to Medicine Use by Children"** — identifies common mistakes made when giving medicines to children; encourages parents to talk about their child's medicines with their health care providers and children.

3. **"Medicine: Before You Take It, Talk About It"** — discusses why older adults need to speak up about their medicines, ask questions and report what medicines they're taking and how they make them feel.

4. **"Medicines: What Every Woman Should Know"** — explains women's special medicine-related needs; includes approaches for solving common medicine problems.

5. **"Alcohol and Medicines: Ask Before You Mix"** — urges the reader to get specific advice about their medicines, and to learn how to reduce the risk of harmful alcohol/medicine interactions.

6. **"Get the Answers"** —lists important questions patients should ask each time a medicine is prescribed or dispensed.

Ordering Information

Brochures are available in packs of 100 for $20.00 per pack (includes shipping). To order:

1. Send payment by check payable to NCPIE. Indicate the title(s) of the brochure(s) you want on a separate sheet of letterhead.

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4. Allow 3-4 weeks for delivery.

DICKINSON'S PHARMACY

MEDCO AND APHA: CAN THIS DOG SHED ITS FLEAS?

"When you lie down with a dog, you're liable to get fleas." That was American Pharmaceutical Association executive vice president John A. Gans' good-humored acknowledgment, in private, a few days after he persuaded his board to make a shocking deal with Medco Containment Services' wholly-owned Paid Prescriptions subsidiary.

He invited teams of Medco, Paid, and Merck executives to make promotional presentations to his board and to assembled state pharmaceutical association executives at APhA headquarters during the weekend of September 18-19, after which the board voted in favor of formally endorsing Paid's "Coordinated Care Network."

If it could have been anybody else but Medco, then any plan that routinely pays pharmacists for their cognitive services, and lifts them out of life-and-death dependence on ever-skimpier product margins, must be encouraged.

That Gans could within a few days refer rhetorically to his new partner as if it were a dog didn't mean he was having second thoughts already. Still fervently convinced of the merits of Paid's promises to pay pharmacists for cognitive services, Gans was simply acknowledging reality—community pharmacy despises Medco and abhors the pending Merck merger.

And there is no doubt that Medco has spent the last decade in pharmacy acting like an animal—be it a hyena or a flea-bitten mongrel dog, or the more generous image offered by former Paid executive Marcel Laventurier (who tried to sell the company to APhA in 1965): a "tiger."

Directed by the brilliant and voracious Martin J. Wygod, Medco has thumbed its nose at state laws governing the practice of Pharmacy, twisted the arms of pharmaceutical manufacturers until they abandoned their traditional customers by extending retail-deadly discounts to Medco, trampled on the professional ideas of its employee pharmacists, and brazenly lied to investigators, its clients and most of all the media about its behavior.

Only a month before APhA Endorsed Paid's new network—which was spawned out of negative financial market reactions to the merger with Merck—a terrified former employee of Medco's National Rx mail-order operation came to me with new disclosures about the company's alleged lawlessness. This pharmacist was just the latest among other Medco pharmacists who have done the same thing out of stricken consciences.

Technicians, Pharmacist X told me (I agreed to shield the pharmacist's identity), were illegally calling prescribers and interpreting prescriptions so successfully at one of Medco's Florida facilities that management decided to expand their role. The plant's ratio of pharmacists to technicians had been raised to an effective 1:6, far in excess of the state's 1:1 limit (or 1:2 by special waiver if the second technician is restricted to data-entry).

I was given an obviously authentic November 11, 1992 Medco interoffice memorandum by supervisor Chris Asaro, advising that the company's ratio henceforth will be 1:3, which Pharmacist X says works out in practice to mean peaks as high as 1:6 when client tours or

board inspections are not taking place. When they are, job stations are rapidly switched during the five minutes' notice that the facility gets before each tour or inspection; technicians leave the pharmacy area and hide in other rooms. Medco pharmacists in Ohio and Texas have told me the same thing over many years.

Obviously unaware of the clandestine overtures that even then were being made to APhA by Medco, Pharmacist X predicted that in the brave new world for pharmacy being created by Medco there would be only one valuable function for pharmacists—calling prescribers in Medco's grotesquely lucrative "Prescriber's Choice" program that persuades doctors to change drug choices in favor of products on which Medco has secured an exclusive price break or kickback. Breaks like $2.58 for Aerobid Inhaler System 7 gm that costs independents around $33 (according to price-discrimination lawsuits filed in August against Medco, Bergen Brunswig, McKesson and four manufacturers by Fred Mayer's Pharmacy Defense Fund).

For no matter what APhA, Medco or Merck may want us to think, Paid remains—perhaps irretrievably—tainted by its in-house Medco mail-order connection. As Connecticut state pharmacy executive Dan Leone put it: "You can't just wave a magic wand and turn a bad guy into a good guy."

And Pharmacist X told of outright kickbacks, such as the $250 that one company was paying for each Rx that Medco pharmacists switch from a competing product to its brand in the Prescriber's Choice program in exchange for a guaranteed share of market; according to Pharmacist X, such kickbacks effectively reduce Medco's acquisition cost nearly to zero and may explain in part the sharp rise in the drug's price to non-Medco accounts.

As Ohio state pharmacy executive Ernest Boyd commented after hearing the APhA-Medco presentations: "It simply plugs community pharmacies into Prescriber's Choice."

Pharmacist X said pharmacy board inspections were regarded as a joke by Medco pharmacists because the facility is so organized that inspectors simply don't know what they're looking at. As for monitoring the lawfulness of Prescriber's Choice telephone detailing and Medco's other professional conversations with prescribers, "it would take 160 agents to monitor all the calls that go out of that place—and what would a $100,000 fine matter to Medco, anyway? It would be just a cost of doing business."

All of which paints a picture of a practice setting that is beyond public scrutiny or control. Although Pharmacist X brought his evidence before the Florida Pharmacy Board in March, no publicly visible action had been taken by September. Board executive director John R. Taylor told me it was illegal for him to confirm or deny the existence of any investigation.

Despite such frightening pictures of citizen Medco, APhA's Gans fearlessly met with Medco senior vice president of strategic marketing and development Per G.H. Lofberg on numerous occasions before the Merck merger announcement, and introduced him to APhA president Lowell J. Anderson.

Both pharmacists say they recognized in Lofberg's demeanor and hours of philosophizing, a kindred spirit in the highest aspirations they share for pharmacy, health care and citizenship. The intense, well-documented conversations showed Paid as being far ahead of anyone else in its capacity to swiftly change pharmacy for the better.

But Anderson and Gans say they also recognized that what might be driving Medco in its overtures could be stock market criticism of the Merck-Medco merger's greatest weakness—namely, Medco's appalling image in the pharmacy world; what better way to repair it than to secure an APhA endorsement?

That possibly "ulterior" motive didn't worry either Gans or Anderson. They might sup with the Devil if that would profit the profession. Their supping gave them a glimpse of Paid reversing the declining fortunes of thousands of smaller pharmacies—at least $2,000 more

revenue per annum, worst case, if the smallest pharmacy entered into the network's spirit, Gans calculates.

I bluntly asked Anderson: "Then you believe the leopard can change its spots?" Earnestly, he responded: "Yes, I do."

Laventurier, who wasn't privy to any of the discussions, but who has had a lot of dealings with Medco and its key players over the years, answered the same question much more forcefully: "No, the leopard cannot change its spots."

In their own ways, most of the state pharmaceutical association executives who heard the presentations at APhA headquarters shared Laventurier's skepticism, mingled with a strong sense of wishful thinking. If it could have been anybody else but Medco, then any plan that routinely pays pharmacists for their cognitive services, and lifts them out of life-and-death dependence on ever-skimpier product margins, must be encouraged.

Of course, this network should have been set up by PCS, which instead became a lip-servant to high-minded studies and demonstration projects that did nothing to halt the avalanche of small pharmacy closings around the country.

The grim reality is that it was Medco—dog, hyena, tiger or the Devil himself—that came forward in the shining garb of guardian angel to rescue community pharmacy from the edge of extinction. And APhA grabbed the opportunity, even if with significant misgivings.

Is it churlish and mean to point out in this moment of joyous relief that the aforesaid edge of extinction was thrust into community pharmacy by Medco and its imitators in the animal pack that is managed care?

Were NARD and NACDS spoilsports when they threw cold water on the deal for its potential to damage "the advances we have made on behalf of community pharmacy" in the Clinton Administration against discriminatory pricing, mail-order and closed pharmacy panels?

Was it a low blow for them to say in a press release that "in our commitment to secure our future we cannot jump at every offering that uses the 'hot button' words and phrases we want to hear. NARD and NACDS firmly do not believe that community pharmacy's future is best served by relinquishing the distribution of pharmaceuticals to mail-order companies."

For no matter what APhA, Medco or Merck may want us to think, Paid remains—perhaps irretrievably—tainted by its in-house Medco mail-order connection. As Connecticut state pharmacy executive Dan Leone put it: "You can't just wave a magic wand and turn a bad guy into a good guy."

Yet Lowell Anderson reminded us of the Rabin-Arafat handshake on the White House lawn, and the ever-accelerating pace of change in today's world. Things that are unthinkable at 10 o'clock can be acceptable by 4 o'clock. Of a dozen fellow retail pharmacists in Minneapolis he polled at random on the Paid deal, all supported it.

Paid-Medco ambassadors to APhA painted a picture of a new pharmacy world in which Medco might even sell off its mail-order operations, so committed is it now becoming to the better future it sees for community pharmacy. On the other hand, they didn't promise to stop selling contracts with mail-order prescription incentives in them—although Gans says he has such an assurance from Medco.

You make up your own mind. As for me, I'm too old to jump this fast.

This feature is written and presented by Jim Dickinson, on a grant from "Dickinson's Pharmacy–The Independent Voice," a professionally stimulating, practical 8-page monthly newsletter, available for an annual subscription fee of $45.00 from Ferdic, Inc., P.O. Box 367, Las Cruces, NM 88004-0367. NCPhA accepts no responsibility for the views expressed herein as they are those of the author and not necessarily those of NCPhA.

SWITCHING DRUGS

U.S. News & World Report, January 24, 1994

A drugstore bonus program potentially covering 20 million customers began January 1, but chances are they won't hear about it—because under the deal, the money is intended for *druggists*. The program is run by Paid Prescriptions, a unit of mail-order pharmacy giant Medco Containment Services, which was bought last fall by drug maker Merck & Co. Health care insurers and corporate benefits mangers contract with Paid to get lower prices on prescription drugs. To attract customers, Paid is offering money to pharmacists who persuade doctors to switch prescriptions to alternatives that Paid gets more cheaply. Initially, pharmacists get bonuses only if they dispense a higher-than-usual volume of a dozen brand-name drugs, several made by Merck, as well as generic drugs. Medco would not name the drugs. The bonuses are $5 for each switched prescription filled or refilled and 50 cents per generic dispensed.

Most major chain drugstores and more than half of all independents have signed on, according to Medco. The program raises concern about kickbacks and bias in dispensing decisions, says Lonnie Bristow, chair of the American Medical Association's board of trustees. A Medco spokesperson responds that the plan "simply reimburses pharmacists for doing their part in reducing overall prescription drug costs." The American Pharmaceutical Association—the druggists' group that helped design the plan—told members the program is ethical and need not be disclosed to customers.

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Mr. Jim Dickinson, Editor
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Dear Jim:

I am disappointed that your recent column about the American Pharmaceutical Association's endorsement of the Coordinated Care Network, proposed by PAID Prescriptions, Inc., lacks balance in portraying the action that has taken place. While it is your prerogative to state your perceptions, facts related to APhA's endorsement were not given fair play.

APhA has endorsed the concepts of a new plan for administering prescription drug benefits, but in no regard has endorsed PAID Prescriptions, Medco Containment Services, or the pending Merck-Medco merger.

APhA endorsed the Coordinated Care Network:

1) to enhance the role pharmacists play in providing pharmaceutical care services and to change the pharmacy compensation system by rewarding pharmacists for providing services, not just dispensing medication; and

2) to assure that pharmacists have a place in the health care system as managers of drug therapy.

This is not an exclusive endorsement. APhA has not joined with PAID Prescriptions at the exclusion of other benefit managers. APhA looks forward to the introduction of other plans embodying similar concepts. Our hope is that these concepts will become the standard in prescription drug plans in order to help secure pharmacy's place economically and professionally as a primary provider of pharmaceutical care.

Through this endorsement, APhA is expressing a vote of confidence in the skills and abilities of pharmacists and looking to a future that values pharmacists' cognitive services. This also is a very positive step by a large benefits manager in reversing the ever-downward spiral of reimbursement.

It is true, as you stated, that pharmacists have shared their distrust and concern with PAID/Medco and the pending Merck/Medco merger. However, the APhA Board of Trustees felt that, regardless of that distrust, it was time to take action to improve pharmacists' reimbursement.

Many pharmacists who have carefully considered the concepts of the proposal have agreed that it is a positive step in payment system reform. By overlooking the positive concepts embodied in the Coordinated Care Network, your article discourages pharmacists from closely evaluating the program and serves to feed anxieties that exist in the marketplace and apprehension of anything that is new.

APhA firmly believes that PAID's action in the development of the Coordinated Care Network represents change in the approach of drug benefit managers. The success and expansion of this evolution is dependent not only on PAID, but on the response and performance of each participating pharmacist.

The profession can prosper in this era of health care reform if we are not afraid to accept challenges. Pharmacists should welcome this challenge extended by the Coordinated Care Network and begin anticipating their new role in a reformed health care system. As you and other journalists have told us, pharmacy needs to move forward and seize the opportunity to fulfill the American public's need for pharmaceutical care. I would ask that you encourage, not discourage, pharmacists to accept new roles at a time when change is already in progress.

Sincerely,

John A. Gans, PharmD
Executive Vice President
American Pharmaceutical Association

Left: **Convocation attendees enjoyed delicious refreshments provided by the Woman's Auxiliary Hospitality Committee.**

Woman's Auxiliary President Tracey Smith *(right, far right)* **presents Vivian Spradlin Smith Scholarship checks to Lorinda A. Furlough of Creswell and Cynthia Weider of New Bern** *(below, left).*

WOMAN'S AUXILIARY FALL CONVOCATION

The NCPhA Woman's Auxiliary Fall Convocation was held on Thursday, October 14, 1993 at the Institute of Pharmacy in Chapel Hill. President Tracey Smith presided over the day's events.

Greetings and updates on the schools were brought to the group by Dean William Campbell from UNC and by Dean Ronald Maddox from Campbell University. Ray James, President of TMA also brought greetings from his organization (as well as acting as the Qualex photographer of the day's activities) as did Rob Bizzell, President of NCPhA.

"Learning About Our Past in Order to Preserve Our Future" was the theme for the day and was highlighted by speaker Al Mebane, Executive Director of NCPhA. During the morning session of the program, he spoke on the history of the Institute and the NCPhA. The afternoon speaker was Kim Barrow, curator of the May Museum in Farmville and Executive Director of the Farmville Dogwood Festival who spoke on "Hidden Treasures."

The day had a decided "down East" flavor. The lunch was delightfully prepared and served by John Miller and his staff from Staccato Café in Greenville. The beautiful and dramatic table arrangements were provided by Ed Glenn from Jeffersons, also in Greenville. The lunch time entertainment of piano and singing was performed by two East Carolina University School of Music graduates, the talented Hope Moore and Angela Burns!

NCPhA Woman's Auxiliary Scholarship recipients attended the convocation and were introduced during the business session. They included:

Vivian Spradlin Smith Scholarships
Lorinda Ann Furlough—Creswell
Cynthia Robin Wieder—New Bern

WJH and Vivian Spradlin Smith Scholarships
Tracy Marie Eatman—Garner
Dana Joetta Oakes—Lincolnton

Lucile Swaringen Rogers Scholarship
Karen Elizabeth Thompson—Wendell
(on rotation in Alaska during Convocation)

Campbell University Scholarship
Virginia Clay—Oxford

After the business session President Smith announced her project for the year. The very apparent needs of our "home away from home" —the Institute of Pharmacy—is to be her focus this year. Her hope to make some much needed improvements at the Institute will be accomplished through various fundraisers. She read a list of over 20 organizations that use or have used the Institute on a regular basis to illustrate how much "wear and tear" the building and furnishings receive. The first fundraising effort will be a "Winter Ball" which will be held at the Henry Smith home on January 29, 1994. This will be a formal affair, and will include music and a dinner buffet. The second fundraiser will culminate at the NCPhA Convention at Myrtle Beach, SC in May of 1994. Some lucky pharmacist, TMA member or Woman's Auxiliary member will win a 1994 Buick Roadmaster at the convention, with tickets sold in advance and limited to 400.

The day concluded with a reminder to view the historical display in the lobby area that had been put together by the staff of the Institute. The wonderful display included pictures of the Institute, as well as Auxiliary members and other mementos from the NCPhA and Auxiliary past.

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CORRESPONDENCE COURSE

PATIENT COUNSELING ON HYPNOTICS PART II: BENZODIAZEPINES

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, R.Ph., Pharm.D.
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to discuss the treatment of insomnia with benzodiazepine hypnotic drugs.

Objectives

At the conclusion of this lesson, the participant should be able to:

1. select the pharmacologic action of benzodiazepines;
2. differentiate between commercially available benzodiazepine hypnotic drugs;
3. identify adverse effects caused by benzodiazepines; and,
4. demonstrate knowledge of information to use in counseling patients taking benzodiazepines.

Hypnotics do not cure insomnia, but they do provide symptomatic relief. They should be used as adjunctive treatment for transient to short-term insomnia as part of a larger therapeutic program that consists of education about the basic disorder and nonpharmacologic treatment.

Benzodiazepine derivatives are, at present, close to the ideal hypnotic, although the imidazopyridines may soon emerge as superior. In 1983, the Consensus Development Conference on Drugs and Insomnia was held at the National Institute of Mental Health. Its conclusions, published shortly thereafter (*JAMA* 251:2410, 1984), listed three significant outcomes: (1) hypnotics should be used, if at all, primarily in the treatment of short-term insomnia, such as situational (e.g., stress), jet lag, and work-shift change; (2) when a drug is indicated, a benzodiazepine is generally the treatment of choice; and (3) selection of the specific agent should be based on its pharmacodynamic and pharmacokinetic characteristics selected to match the individual patient and situation.

Mechanism of Action

There are four major neurotransmitters involved in sleep physiology: acetylcholine, dopamine, gamma aminobutyric acid (GABA) and serotonin. Of these, GABA is an extremely

important inhibitory neurotransmitter in the brain stem and foreparts of the higher centers of the brain. When released from its storage areas, GABA reacts with its receptors on central neurons, thereby reducing passage of nerve impulses upward to the brain's higher centers.

Receptor sites are chemical configurations on cell membranes that allow natural neurotransmitters to combine and react to either increase or decrease the activity of that cell. With GABA, the result is lowered cellular activity (inhibition) in the brain which allows for sleep. Physiologically, GABA enhances entry of chloride ions into neutrons. This hyperpolarizes them, raising their threshold for firing and prevents impulses that would otherwise move upward to the cerebral cortex. With reduced stimulation from the environment, consciousness is lessened, the individual relaxes, and sleep follows.

Benzodiazepines induce hypnotic action due to their ability to bind with specific chemical configurations (receptor sites) on neurons and, by doing so, enhance the activity of GABA. This, in turn, promotes and maintains sleep.

To date, three different "benzoadiazepine" receptor sites have been identified. These are referred to as omega-1 (BZD-1, BZ-1), omega-2 (BZD-2, BZ-2) and omega-3 (BZD-3, BZ-3) sites.

The precise physiological difference between the omega receptor sites is not fully known, but the omega-1 type appears to be the most important for inducing and maintaining sleep. Omega-2 and omega-3 subtype receptors are more closely associated with alternative benzodiazepine activities (i.e., anticonvulsant, muscle relaxation), adverse effects and addiction potential.

Most benzodiazepines do not differentiate between these three receptor sites and, consequently, bind with all three types to differing degrees. Many experts believe that the ideal hypnotic will bind only with omega-1 receptors. In fact, one of the currently available benzodiazepines, quazepam, reportedly binds specifically with omega-1 type and appears to be the most important for inducing and maintaining sleep. Omega-2 and omega-3 subtype receptors are more closely associated with alternative benzodiazepine activities (i.e., anticonvulsant, muscle relaxation), adverse effects and addiction potential.

Most benzodiazepines do not differentiate between these three receptor sites and, consequently, bind with all three types to differing degrees. Many experts believe that the ideal hypnotic will bind only with omega-1 receptors. In fact, one of the currently available benzodiazepines, quazepam, reportedly binds specifically with omega-1 receptors, but its metabolites bind with the other two as well.

Benzodiazepines as a group are similar to each other, but they do differ in several important ways. They possess varying degrees of hypnotic, anxiolytic (anti-anxiety), anti-convulsant and muscle relaxant activity. Differences among the drugs appear to be due to varying affinities for the above described receptor sites. While they exert little effect on other organ systems, benzodiazepine hypnotics can produce different levels of CNS depression.

Other differences among benzodiazepines

Table 1
Classification of Benzodiazepine Derivative Hypnotic Drugs

Generic/Trade Name	Time to peak plasma levels (hrs)	Half-life (hrs)	Dosage range (mg)
Estazolam/ProSom	2	10–24	1–2
Flurazepam/Dalmane, etc.	0.5–1	47–100	15–30
Quazepam/Doral	2	39	7.5–15
Temazepam/Restoril, etc.	2–4	9.5–12.4	7.5–30
Triazolam/Halcion	0.5–2	1.5–5.5	0.125–0.25

include the rate of absorption, level of protein binding, elimination half-life, and metabolic profile. These differences can be especially significant in geriatric patients.

Benzodiazepines have been studied extensively for the full range of their potential usefulness. Table 1 classifies benzodiazepine derivative hypnotic drugs.

Several other benzodiazepines are included in an intermediate zone in that, while they are used mainly to treat anxiety, they can also be used to induce sleep when anxiety is a factor. The group includes alprazolam (Xanax), lorazepam (e.g., Ativan) and oxazepam (e.g., Serax).

Choosing a Benzodiazepine Hypnotic

The choice of a particular hypnotic benzodiazepine is based on a number of factors including the patient's sleep complaint (i.e., can't get to sleep, or can't stay asleep), the patient's age and physical condition, the drug's kinetics and the type of insomnia being treated: transient, short-term or chronic.

Transient insomnia is best treated with a low-dose, rapidly metabolized benzodiazepine that has a short half-life. Benzodiazepines can be used in short-term insomnia as an adjunct to better sleep hygiene. Their use should be limited and intermittent. The need for patients to understand this is extremely important.

Benzodiazepines can also be used for patients with chronic insomnia, but they should be reserved for the period during which the physician is determining the underlying cause. In this situation they should be used every other, or preferably, every third night.

While they are sometimes used for long periods of time, the only approved indication for benzodiazepine hypnotics is for "short-term management of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakenings." Effort should be made to discontinue these drugs as soon as possible.

Flurazepam. Flurazepam (e.g., Dalmane) was the first benzodiazepine derivative marketed solely as a hypnotic. Compared with the barbiturate and nonbarbiturate hypnotics, flurazepam has a wider margin of safety, lower potential for abuse, and fewer drug interactions. It produces little or no effect on REM (rapid eye movement) sleep at lower doses (15 mg). For patients in whom it is effective, flurazepam gives a full night's sleep with few early morning awakenings. Whether or not a true withdrawal phenomenon exists has yet to be clarified.

In some patients, flurazepam remains effective at constant dosing when administered for up to 28 consecutive nights. However, it suppresses delta (the most restful and refreshing) sleep, and its long-acting metabolite accumulates over time. Impaired daytime functioning, especially in elderly persons, can lead to falls resulting in injuries. Peak plasma levels are noted within 30 to 60 minutes.

Temazepam. The major advantage of temazepam (e.g., Restoril) is its short-to-intermediate elimination half-life of 9.5 to 12.4 hours. Temazepam produces a full night's sleep with few early morning awakenings. However, its half-life may increase to 20 to 30 hours in elderly individuals. Possible accumulation and morning hangover must be monitored with repeated use. The manufacturer of Restoril has introduced a 7.5 mg dosage strength specifically for geriatric patients.

Temazepam shares similar properties with flurazepam with respect to effects on sleep. With doses of 15 to 30 mg, temazepam increases total sleep time and decreases the frequency and duration of nocturnal awakenings. It suppresses delta sleep. Although it decreases REM sleep during the first half of the night, there is an increase in REM sleep during the second half. Because it may require 1 to 2 hours for onset of action, there is some question about its action to bring on sleep significantly faster in the patient who has difficulty falling asleep.

Triazolam. An ultrashort to short-acting benzodiazepine hypnotic, triazolam (Halcion) has an elimination half-life of 1.5 to 5.5 hours; peak plasma levels are reached within 30 to 60 minutes. Absorption appears to be as quick as that of flurazepam, but elimination is more rapid. Triazolam suppresses REM sleep in the first half of the night, but appears to increase it during the second half.

Triazolam has little effect on delta sleep.

This is its primary distinguishing difference from other benzodiazepines. Triazolam is also the least likely of all benzodiazepines to produce morning hangover. At a dose of 0.25 mg, it is practically nonexistent. As with flurazepam and temazepam, triazolam increases the total quality of sleep, decreases nocturnal awakenings, and increases total sleep time.

Controversy over Halcion has been mounting since its introduction to the American market in 1982. While it is both safe and effective when used properly, triazolam has been associated with higher levels of bizarre and psychic side effects than with the other benzodiazepines. Halcion became the number-one prescribed hypnotic soon after its release, but by 1988 its manufacturer discontinued the 0.5 mg dose and advised physicians that lower dosages should be prescribed.

By mid-October 1991, Argentina, England, Finland, Holland, Jamaica and Norway had removed triazolam from their markets, and France and New Zealand had removed the 0.25 mg strength.

In late 1991 after in-depth discussions with FDA, Halcion's manufacturer agreed to a number of labeling changes to enhance its safe use, to package the tablets in a 10-dose packet for retail use, and to include a patient information leaflet in the package (Table 2). It also announced it was planning to undertake a 10,000-patient clinical study to compare the safety of Halicon with other hypnotics.

A major concern with triazolam is its tendency to cause psychomotor impairment, psychologic adverse effects, and a very specific type of memory impairment called *anterograde amnesia.* Anterograde amnesia is the loss of memory about information which is acquired after the hypnotic is administered and before sleep onset.

Anterograde amnesia is not unique to triazolam. Other benzodiazepines and barbiturates also produce anterograde amnesia to lesser extent. It appears to be a function of dosing and the speed of onset of action. The higher the dose and the quicker a drug puts one to sleep correlates significantly with the anterograde amnesic properties of the drug. Any individual who falls asleep in less than six

Table 2
Patient Information about Halcion*

To assure the safe and effective use of Halcion, you should heed the following precautions:

1. Halicon is a prescription medication and, therefore, should be used only as directed by your doctor. Follow your doctor's advice about how to take it, when to take it, and how long to take it. As with other prescription medication, Halcion should be taken only by the individual for whom it is prescribed.
2. Do not extend your use of Halcion beyond 7–10 days without first consulting your physician.
3. If you develop any unusual and disturbing thoughts or behavior during treatment with Halcion, discuss such problems with your doctor.
4. Inform your doctor about any alcohol consumption and medicine you are taking now, including drugs you may buy without a prescription. Do not use alcohol while taking Halcion.
5. Do not take Halcion in circumstances where a full night's sleep and elimination of the drug from the body are not possible before you would again need to be active and functional, because amnesiac episodes have been reported in such situations.
6. Do not increase the prescribed dose except on the advice of your doctor.
7. Until you experience how this medication affects you, do not drive a car or operate potentially dangerous machinery, etc.
8. Be aware that you may experience an increase in sleep difficulties (rebound insomnia) on the first night or two after discontinuing Halcion.
9. Inform your doctor if you are pregnant or if you become pregnant while taking this medicine. The use of Halcion should be avoided at any time during pregnancy.

**Note: This is good advice for all hypnotics.*

Table 3
Comparison of Adverse Effect Profiles of Benzodiazepine Derivatives with Short- and Long-Acting Elimination Half-lives

Characteristic	Short-acting	Long-acting
Accumulation with repeated use	No	Marked
Hangover effects the next day	Mild	Moderate
Tolerance	Moderate	Mild
Risk of rebound amnesia	Moderate	No
Risk of early morning insomnia	Mild	No
Risk of daytime anxiety	Mild	No
Anxiolytic effects the next day	No	Moderate
Full benefits with the first dose	Moderate	Moderate

or seven minutes has a high likelihood of experiencing anterograde amnesia.

The safety of triazolam has also been of concern due to its association with *traveler's amnesia.* This is a form of anterograde amnesia that occurs when an individual uses a short-acting hypnotic to induce sleep while flying across time zones. Following ingestion of the drug and arrival at the airport (i.e., checking in or getting comfortable, etc.), the traveler has only limited, if any, recall of events that occur from check-in to arrival at his/her destination. Ingesting alcoholic beverages during the flight further complicates the situation.

The precise reason for anterograde amnesia is not yet known. Hastened sleep onset may interfere with the brain's ability to assimilate information for long-term memory. This would disrupt consolidation of memory, and hence, recall the next day.

Quazepam. Quazepam (Doral) reportedly has strong specificity for the omega-1 receptor subtype. While the half-life of the parent compound is 39 hours, one of its metabolites, *N*-desalkyl-1-oxoquazepam, is identical to the long-acting active metabolite of flurazepam, *N*-desalkylflurazepam.

Peak plasma concentrations are noted in 2 hours. Quazepam provides a full night's sleep with few early morning awakenings and little rebound insomnia. However, it is associated with next-day sedation.

Estazolam. Estazolam (ProSom) has a relatively rapid onset of activity with few nocturnal or early morning awakenings, and increased total sleep time, depth of sleep and sleep quality. It provides a full night's sleep, little rebound insomnia, and has not demonstrated tolerance in clinical trials.

Peak plasma concentrations are achieved within 2 hours of the recommemded dose, and its onset of action is similar to that of flurazepam and triazolam. Its half-life is 10 to 24 hours. With chronic dosing, peak levels become 1.5 to 2 times as high as that following a single dose. Because the drug is rapidly absorbed, it can increase the onset of sleep significantly (a distinct advantage over temazepam) and provide a duration of action between flurazepam and triazolam.

Adverse Effects and Safety of Benzodiazepines

Adverse effects of benzodiazepines are partially dose-dependent. For example, rebound insomnia with triazolam is reported to be more prominent with 0.5 mg than with 0.25 mg doses, and can be lessened by tapering the dose downward. Studies show that benzodiazepines impair performance in a dose-dependent fashion. Other trials confirm that benzodiazepines with long biological half-lives are more likely to impair next-day performance. Thus, it is clear that the lowest possible dose should be used. Table 3 compares the adverse effect profiles of benzodiazepine hypnotics and short-and long-acting elimination half-lives.

Benzodiazepines are relatively safe. However, they should not be given to patients with suicidal tendencies. While barbiturates and

other hypnotics have been used successfully to commit suicide, the potential for death in benzodiazepine derivative overdose is low unless they are taken concurrently with other CNS depressant drugs including alcohol. All hypnotics, including benzodiazepine derivatives, should be prescribed in limited quantity so that there is less potential for intentional or accidental overdose.

There are few potential interactions with other drugs and diseases and benzodiazepines. The most important drug-drug interaction occurs with other CNS depressants which cause additive effects when taken concurrently. While the significance is questionable, levels of flurazepam, quazepam, and their long-acting metabolite *N*-desalkylflurazepam can accumulate when taken with cimetidine (Tagamet) and other drugs which interfere with oxidative metabolic processes. Liver disease and reduced liver function seen with advanced age can potentiate benzodiazepines.

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Patient Advice for CNS Depressant/Sedative Drugs: Benzodiazepine Hypnotics (Dalmane, Doral, Halcion, ProSom, Restoril, etc.):

- Take this medication with one-half to one full glass of water or other liquid at least 15 minutes before going to bed. The dose can be followed by a light snack.
- If you have been taking a benzodiazepine in large doses or for long periods of time, do not stop taking the medicine abruptly without consulting your doctor. It may be best to gradually reduce the dosage.
- Some people experience disturbed sleep for 1 or 2 days after discontinuing this medication. This should go away in a few days. If it continues, contact your doctor.
- This medicine may cause drowsiness in the morning. Make sure you are alert before driving or operating hazardous equipment.
- Bizarre mental effects have occurred from simultaneous ingestion of alcohol and benzodiazepines. It is best to avoid alcohol while taking this medication.

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CORRESPONDENCE COURSE QUIZ

Patient Counseling on Hypnotics
Part II: Benzodiazepines

1. Anterograde amnesia refers to loss of memory:
   a. about dreams occurring while taking a hypnotic.
   b. that comes and goes over several weeks.
   c. about information between taking a hypnotic and falling asleep.
   d. on how to answer questions in C.E. articles.

2. In addition to their hypnotic action, benzodiazepines exert all of the following activities **EXCEPT:**
   a. anticonvulsant.
   b. anti-inflammatory.
   c. anxiolytic.
   d. muscle relaxant.

3. The sites of action within the CNS that benzodiazepines bind with are called:
   a. adrenergic receptors.
   b. cholinergic receptors.
   c. endorphin receptors.
   d. omega receptors.

4. Which subtype receptor in question #3 appears to be most important for inducing and maintaining sleep?
   a. Subtype-1
   b. Subtype-2
   c. Subtype-3

5. The following interact significantly with benzodiazepines.
   a. Antihypertensives
   b. CNS depressants
   c. NSAIDs
   d. Anticonvulsants

6. What is the inhibitory neurotransmitter in the brain stem and foreparts of the higher centers in the brain?
   a. Acetylcholine
   b. Dopamine
   c. Gamma aminobutyric acid
   d. Serotonin

7. The physiological process that results from action of the neurotransmitter referred to in question #6 is that it enhances entry of which of the following ions into neurons?
   a. Chloride
   b. Sodium
   c. Bicarbonate
   d. Calcium

8. The primary distinguishing difference for triazolam compared to other benzodiazepines is that it:
   a. causes more morning hangover.
   b. has a longer elimination half-life.
   c. takes longer to induce sleep.
   d. has little effect on delta sleep.

9. Which of the following is classified as an *intermediate zone* benzodiazepine?
   a. Chlordiazepoxide
   b. Quazepam
   c. Clonazepam
   d. Lorazepam

10. Temazepam exerts all of the following activities **EXCEPT:**
   a. increased total sleep time.
   b. decreased frequency of nocturnal awakenings.
   c. decreased half-life in elderly patients.
   d. decreased duration of nocturnal awakenings.

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At the present time, Carolina Medical Products Company does not anticipate an increase in its workforce, which currently totals 22 full-time employees.

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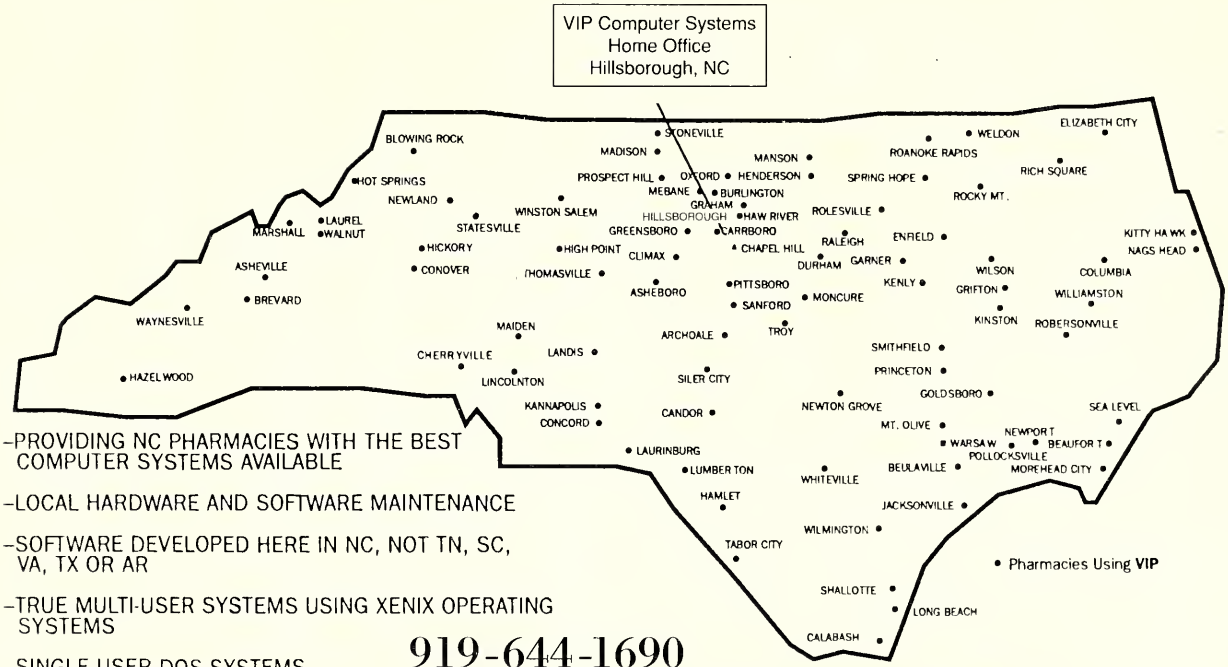

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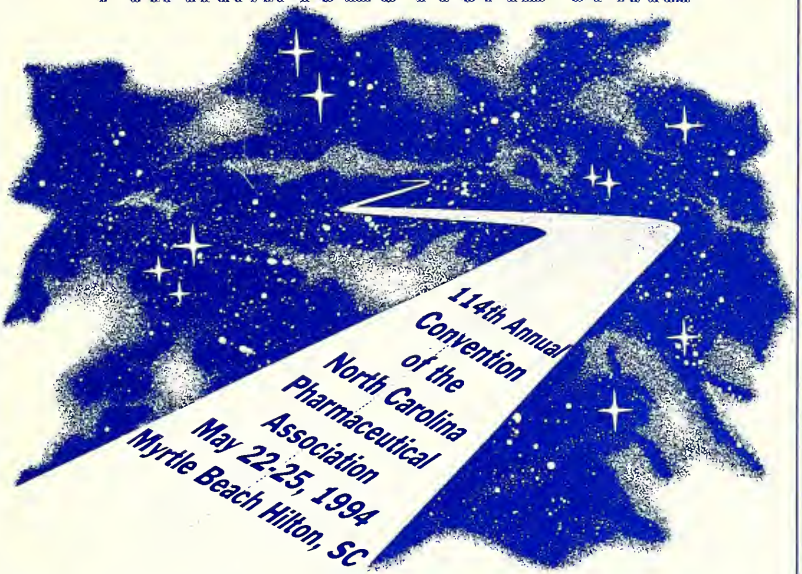

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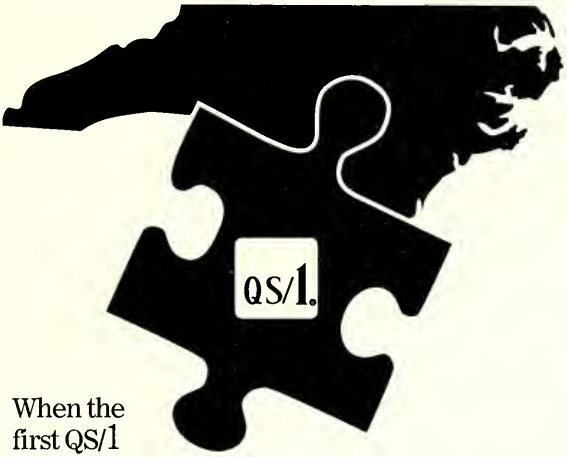

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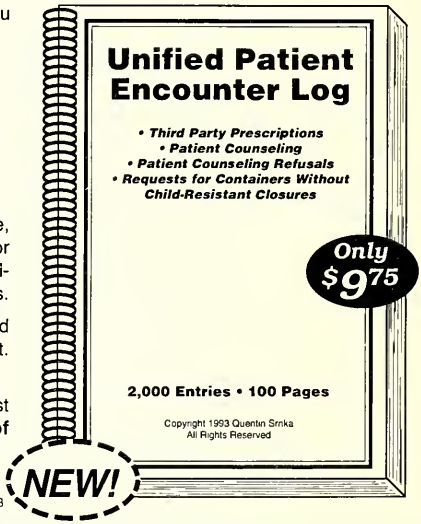

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Business Manager
BETSY MEBANE

NCPhA Office
P.O. Box 151
Chapel Hill, NC 27514
919•967•2237 or
800•852•7343

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ATTENTION TMA MEMBERS

Applications have been sent out for your 1994 Traveling Member's Auxiliary (TMA) memberships. Due to the death of our faithful Secretary-Treasurer, Mr. L.M. McCombs, please send all membership applications, renewals, and inquiries to:

Raymond W. James, TMA President
5304 Birch Place
Raleigh, NC 27609-4106.

Checks should be payable to TMA.

Please join us at the Convention in Myrtle Beach, SC, May 22-25. At that time, the TMA will need to select a Secretary-Treasurer during the Annual Business Session. We welcome your suggestions.

BUY A NEW FULLY EQUIPPED 1994 BUICK ROADMASTER

FOR ONLY $100*

That's right *if your ticket is the one chosen from the four hundred sold,* * you could be the lucky owner of a Buick Roadmaster.

The Woman's Auxiliary of the North Carolina Pharmaceutical Association is giving the members of the NCPhA, the Woman's Auxiliary and the Traveling Members' Auxiliary an opportunity to win this beautiful car.

The drawing and announcement of the lucky winner will take place at the 1994 Annual Convention in Myrtle Beach. Only 400 tickets will be printed and sold. There is no limit on the number of tickets an individual may purchase.

Tickets are $100 each and the proceeds from this drawing will be used by the Woman's Auxiliary to refurbish rooms at the Institute of Pharmacy.

Send your contribution/ticket order to:
NCPhA—CAR
P.O. Box 151
Chapel Hill, NC 27514

A numbered ticket stub will be sent to you with a receipt. Your name, address and telephone number will be put on the ticket at NCPhA and transported to the convention.

Special thanks to Doug Henry of Farmville, for supplying the car at a competitive price.

MEMBER ACTIVITIES

CANADAY NAMED APhA-APPM FELLOW

Bruce R. Canaday, a pharmacist in Wilmington, has been named a Fellow of the American Pharmaceutical Association (APhA) - Academy of Pharmacy Practice and Management (APPM). Canaday is a clinical professor with the University of North Carolina School of Pharmacy and director of pharmacy programs at the Coastal Area Health Education Center in Wilmington.

Canaday has served as chairman of the APPM Clinical/Pharmacotherapeutic Section, as delegate to the APhA House of Delegates, and as educational programmer for the APhA Annual Meeting. Additionally, he edits a column for the APhA journal, *American Pharmacy.* He earned his BS degree in pharmacy from Purdue University and his PharmD degree from the University of Tennessee, Memphis.

To attain fellow status, a candidate must complete a minimum of 10 years of progressive and distinguished professional practice and been involved in the activities of APhA, APPM, and other professional organizations. Recognition of this honor will occur at the APPM Awards Ceremony during the APhA 141st Annual Meeting and Exposition in Seattle, March 19-23, 1994.

SMALL ELECTED TO APhA-APPM POST

Ronald H. Small, director for the department of pharmacy for inpatient and outpatient services at North Carolina Baptist Hospital, has been elected Chairman-elect of the Institutional Practice Section of APPM.

Small is a graduate of the University of North Carolina and immediate past president of the North Carolina Society of Hospital Pharmacists.

The APPM represents pharmacists in practice and management through the following sections: Administrative Practice, Clinical/Pharmacotherapeutic Practice, Community and Ambulatory Practice, Institutional Practice, Nuclear Pharmacy Practice, and Specialized Pharmaceutical Services.

SCOTTY DRUG STORE GETS BUSINESS OF THE MONTH AWARD

Scotty Drug Store was named the Kernersville Chamber of Commerce-Kernersville News Business of the Month for December. Hampton F. Langdon owns the pharmacy, and he and John E. MacDonald are the current full-time pharmacists.

Scotty Drug Store was awarded this honor in recognition of its many contributions to the community, including a program to donate items to those in need throughout the year, and serving the needs of senior citizens and handicapped citizens of area nursing homes who do not have immediate families.

The Business of the Month award is presented each month to an individual or business that has demonstrated a long-standing involvement in and support of the Chamber's community projects.

ASP CHAPTER AT UNC HOSTS MANAGED CARE SYMPOSIUM

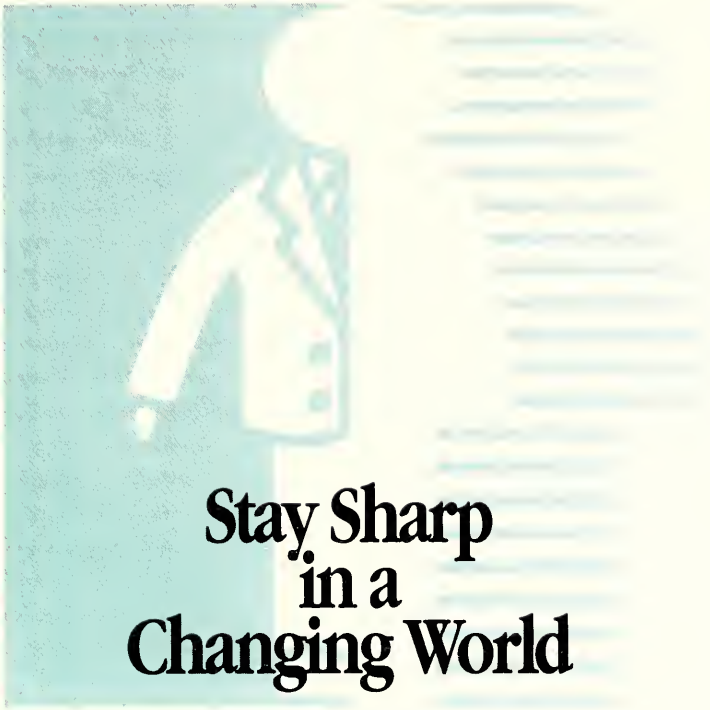
by Steven Eckel, ASP Chapter President

The Managed Care Committee of the Academy of Students of Pharmacy at UNC hosted a health care reform forum February 8. The program, entitled "Managed Care: The Effects of the Clinton Proposal" was open to all students in health care related curriculums.

The purpose of the program was to inform students about health care reform and also about the managed care delivery system. Harry Kaplan, a lawyer with the government relations department of Kaiser Permanente of North Carolina, was the keynote speaker. He used Kaiser as an example to explain what managed care is and how it will play a role in health care reform. Following Kaplan's remarks, there was a panel discussion between representatives from four different health care fields.

Dr. Lucinda Maine, senior director of pharmacy affairs for the American Pharmaceutical Association, represented the profession of pharmacy. Dr. Maine shared her views concerning what role pharmacists must play in health care reform. Other panel members were: Dr. Mary Peter, representing nursing; Dr. David Ontjes, representing medicine; and Dr. Thomas Ricketts, representing health policy. Each panelist gave a brief response to Kaplan's speech, and personal views on health care reform. Questions from the audience originated additional discussion. Following the program, ASP hosted a reception in the School of Pharmacy for all those attending the program.

The Managed Care Panel featured ***(from left)*** **Harry Kaplan, Lucinda Maine, Tom Ricketts, Mary Peter, and David Ontjes.**



Stay Sharp in a Changing World

Improve your management skills with our new continuing education series, "Leadership in a Changing Profession."

With everything from mandated patient counseling to new therapies demanding your attention, it can be hard to keep up. We can help with a dynamic new series of ACPE-approved continuing education management programs presented "live" by expert pharmacist faculty and tailored to the needs of community and hospital pharmacy groups. Programs include:

- *Interpersonal Skills for Pharmacists* (1.5 hours)
- *Promoting Pharmacy Services: Positioning for Growth and Success* (1 hour)
- *Plan to Make a Difference: Leadership, Management, and Transformation* (1 hour)

If your organization would like to take advantage of these helpful, free programs, talk to your SmithKline Beecham Pharmaceuticals Representative today.

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HEALTH CARE REFORM
PHARMACEUTICAL CARE
114th Annual Convention of the North Carolina Pharmaceutical Association
May 22-25, 1994
Myrtle Beach Hilton, SC
Are you willing to take the road less traveled?

Join your fellow members of the NCPhA, the Woman's Auxiliary, and the Traveling Members' Auxiliary at the 114th annual convention of the North Carolina Pharmaceutical Association

May 22-25, 1994

Myrtle Beach, South Carolina

PREVIEW OF THE 114TH ANNUAL CONVENTION OF THE NORTH CAROLINA PHARMACEUTICAL ASSOCIATION

Nine Hours of ACPE approved Continuing Education can be obtained by attending the NCPhA General Sessions, and workshops during the 114th NCPhA Annual Convention, May 22-25, 1994.

Awards will be presented to deserving pharmacists at the Awards Session on Sunday, May 22 and later that evening during the Opening Session Banquet.

Presidents' Reception on Sunday, May 22, from 6:00–7:00p.m. will honor W. Robert Bizzell, NCPhA President; Tracey Smith, Woman's Auxiliary President; Raymond W. James, Traveling Members' Auxiliary President; and Award Recipients.

Actress Barbara Hird will entertain the audience as she recreates one of England's most fascinating monarchs, Queen Elizabeth I. Learn more about the "real" Queen in this delightful presentation during the Opening Banquet, Sunday, May 23.

Dick Wuest, Professor of Clinical Pharmacy at the University of Cincinnati, will present "New Drugs, Part I" at the first General Session on Monday, May 23. An overview of the newest additions to the pharmaceutical marketplace, this program will provide timely information about new therapeutic entities, delivery systems, etc. Dr. Wuest will present "New Drugs: Part II" on Monday afternoon. Picking up where the morning session left off, this presentation completes an introduction to "New Drugs."

Jim Morrison, of "The Company," will give a leadership presentation the afternoon of Monday, May 23. Directed towards pharmacists in their first ten years of practice and pharmacy students, Morrison will offer guidance on developing and using leadership skills in many settings.

Dr. Mark Heuser, from the Bowman-Gray School of Medicine, will present a workshop focusing on inter-disciplinary consultation and teamwork on Monday, May 23. Health care reform and other changes will encourage health professionals to establish close, collaborative relationships to achieve optimal care for the patient. Dr. Heuser will provide insight on how to develop these relationships.

Food and Fun by the Pool, Monday, May 23. Join friends and colleagues around the pool as you relax and enjoy a delectable dinner. A meeting can't be all work and no play!

The T.M.A. Dance, Monday, May 23. Get ready to dance the night away! Featuring "Second Chance," this should be an evening to remember.

Exhibitor's Fair and Apron Luncheon. With a delicious lunch neatly tucked into the pockets, the Apron Luncheon adds new meaning to the term "to go." Enjoy your lunch as you browse through the large number of exhibits.

Enjoy a Carolina Cookout on Tuesday evening, before heading off to enjoy "The Carolina Opry." Featuring a variety of live music and comedy, The Carolina Opry promises an evening of world-class entertainment. Buses will be available to transport you to the evening's events–so relax, and leave the driving to us!

Ice Cream Sundae Party, Tuesday, May 24. As a finale to an evening out, ice cream and lots of toppings will be served with delicious coffees. The Woman's Auxiliary will also hold the drawing to give away the Buick Roadmaster—don't miss it!!

The 3rd NCPhA General Session highlights patient counseling, with a presentation sponsored by Pfizer. Designed to provide valuable tips on increasing your effectiveness in patient interaction, this session has practical applications for pharmacy today and for the future.

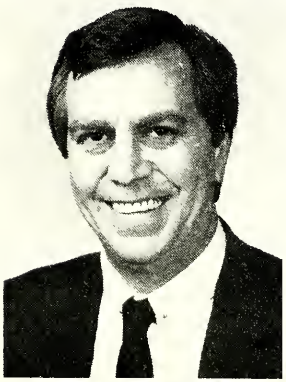
NCPHA CONVENTION LINE-UP

W. Robert Bizzell
President, NCPhA

Tracey Smith
President, WA

Raymond W. James
President, TMA

Mark Heuser
Speaker



J. Richard Wuest
Speaker

Ronald W. Maddox
Speaker

Jim Morrison
Speaker

114th Annual NCPhA Convention Program

Sunday, May 22

9:00am-5:00pm	Board of Pharmacy Exam Review
3:00-6:00pm	Registration Desk Open
3:00pm	Annual PharmPAC Meeting
5:00-6:00pm	NCPHA AWARDS SESSION
6:00-7:00pm	PRESIDENTS' RECEPTION
7:00pm	OPENING BANQUET

Monday, May 23

7:30-8:30am	Kappa Psi Breakfast
7:30-8:30am	TMA Foundation Breakfast
7:30-8:30am	UNC Pharmacy Alumni Assn. Breakfast–honoring Whit Moose, Distinguished Service Award recipient
8:00am	Registration Desk Open
8:30am	1st NCPhA GENERAL SESSION ••2 hrs. ACPE•• "New Drugs, Part I" J. Richard Wuest, Pharm.D. University of Cincinnati, Ohio
8:45am	WA Low Country Tour & Tea (buses load)
Afternoon	GOLF TOURNAMENT
Afternoon	TENNIS TOURNAMENT
1:00-3:00pm	PHARMACISTS' LEADERSHIP WORKSHOP "Enhance Your Leadership Skills" ••2 hrs. ACPE•• Jim Morrison, M.A., President The Company Topeka, Kansas

Monday, May 23 (continued)

1:00-3:00pm	CONSULTANT PHARMACISTS' WORKSHOP Mark Heuser, M.D., M.S. ••2 hrs. ACPE•• Bowman Gray School of Medicine Winston-Salem, NC
3:00-5:00pm	WORKSHOP ••2 hrs. ACPE•• "New Drugs, Part II" J. Richard Wuest, Pharm.D.
4:30-6:00pm	Kappa Epsilon Meeting and Reception
7:00pm	FOOD AND FUN BY THE POOL
7:30pm	TMA Dance by the Pool Presentation of Tennis and Golf Awards

Tuesday, May 24

7:00am	Woman's Auxiliary Walk-a-Thon
7:00-8:30am	LOCAL ASSOCIATION BREAKFAST
7:30-8:30am	Christian Pharmacists' Breakfast
8:30am	Woman's Auxiliary Coffee
8:00am	Registration Desk Open
8:30am-noon	2nd NCPhA GENERAL SESSION AND INSTALLATION OF NCPhA OFFICERS Committee Reports and Reports from CU and UNC Schools of Pharmacy
9:30am	Woman's Auxiliary Annual Business Meeting
10:00am	Traveling Members' Auxiliary Annual Business Meeting
noon-4:00pm	EXHIBITS AND APRON LUNCHEON
noon-2:00pm	Woman's Auxiliary Luncheon, Installation of Officers and presentation by Vicki Reid, Positive Impressions
5:30pm	"A CAROLINA COOKOUT" BY THE POOL

6:30pm — THE CAROLINA OPRY — *Buses begin departing for program beginning at 6:30 pm. Program begins at 8pm.*

11:00pm — ICE CREAM SUNDAE BAR
Drawing for Car

Wednesday, May 25

8:30-11:30am — 3rd NCPhA GENERAL SESSION ••3 hrs. ACPE••
"How to Counsel Patients in Challenging Situations"
Ronald W. Maddox, Pharm.D.
Campbell University School of Pharmacy

Program Objectives

After completion of this program the pharmacists should be able to:

- Recognize therapeutic applications and pharmacologic actions of new drugs presented.
- Demonstrate understanding of the interactions involving the drugs discussed.
- Explain proper techniques for taking, using, or applying the drugs discussed.
- Develop leadership skills for pharmacy practice and professional organizations.
- Anticipate the changes managed health care will have on the practice of medicine.
- Understand the concept of the geriatric interdisciplinary team approach.
- Describe considerations for drug therapy rationale in the geriatric patient.
- Demonstrate skills in collaboration and bidirectional communication with physicians.
- Name three stages of the PAR technique.
- Explain how to prepare for potential problems.
- Describe how to assess patients and situations.
- Discuss appropriate responses to various problems.

Continuing Education Credit

To receive credit, attendance must be acknowledged at the registration desk upon arrival at the program. ACPE certificates of participation will be mailed to all registrants upon completion of the continuing education Attendance Verfication Form and evaluation of the seminar.

Cancellation Policy

Refunds less $15.00 will be given when cancellation is received 10 days prior to the event. Thereafter, no refunds will be made.

Faculty

J. Richard Wuest, Pharm.D.
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, Ohio

James H. Morrison, M.A.
Psychology and Education
President
The Company
Topeka, Kansas

Mark D. Heuser, M.D., M.S.
Department of Internal Medicine
Section on Gerontology
Bowman Gray School of Medicine
Winston-Salem, North Carolina

Ronald W. Maddox, Pharm.D.
Professor and Dean
Campbell University School of Pharmacy
Buies Creek, North Carolina

This program provides nine hours (0.9CEUs) of continuing pharmaceutical education. Arrangements to provide ACPE credit have been made through Campbell University. Campbell University is approved by the American Council on Pharmaceutical Education as a provider of continuing pharmaceutical education. Program number 188-088-94-002.

Don't miss the poolside dance!

Enjoy sumptuous hors d'oeuvres by the pool preceding the dance *(additional fee required)*. Convention attendees registered for Monday are invited to join friends and colleagues around the pool on Monday evening for the annual Traveling Members' Auxiliary Dance. *Second Chance* from Durham will entertain our group with a variety of music. So, dust off those dancing shoes and be ready to dance the night away!

BOARD OF PHARMACY EXAM REVIEW

Myrtle Beach Hilton
South Carolina
Sunday, May 22, 1994

9:00 a.m.	**Introduction of Program** Ronald W. Maddox, Pharm.D., Dean Campbell University School of Pharmacy
9:05 am	**NC Pharmacy Law Review** David Work, R.Ph., J.D., Executive Director North Carolina Board of Pharmacy
10:10-10:30am	**Refreshment Break** Sponsored by Campbell University School of Pharmacy and UNC School of Pharmacy
10:30-11:45am	**Review of Parenteral Antibiotics** Byron May, Pharm.D. Campbell University School of Pharmacy Duke University Medical Center
11:45am-1:00pm	**Luncheon**
1:00-1:15pm	**NC Pharmacy Format** W. Whitaker Moose, R.Ph. NC Board of Pharmacy
1:15-2:10pm	**Pharmacokinetics Review** Ronnie Chapman, Pharm.D. Campbell University School of Pharmacy
2:10-2:30pm	**Refreshment Break**
2:30-3:15pm	**Review Over-the-Counter Products** Stephen M. Caiola, M.S., R.Ph. UNC School of Pharmacy
3:15-4:30pm	**Errors and Omissions: Compounding** Robert L. Smith, M.S., R.Ph. UNC School of Pharmacy
4:30-4:45pm	**Program Evaluation**

☛ **Registration and hotel reservation forms on page 22.**

CE Highlights

Opening General Session

"New Drugs, Part I"
J. Richard Wuest
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati,OH

Co-author of the popular continuing education articles found in *The Carolina Journal of Pharmacy* and other publications, Dr. Wuest is also a popular speaker at many pharmacy gatherings. The timely topic, "New Drugs, Part I," will address the latest entrants to the pharmaceutical marketplace.

Consultant Pharmacists' Workshop

"Health Professionals—Working Together"
Dr. Mark Heuser
Bowman Gray School of Medicine
Winston-Salem, NC

Dr. Heuser will explore the importance of inter-disciplinary teams of health professionals in the new health care system. Using examples from the geriatric setting, where teams of health professionals evaluate a patient to determine the appropriate therapy, Heuser will provide information on how to improve communication and interaction with other health care professionals.

Leadership Workshop

"Enhance Your Leadership Skills"
Jim Morrison
President
The Company
Topeka, KS

Directed towards pharmacists in their first ten years of practice, Jim Morrison leads a lively discussion on developing leadership skills. In the changing environments of health care, these are skills which each pharmacist will need to develop and use—in both practice and professional organization activities.

Afternoon Workshop

"New Drugs, Part II"
J. Richard Wuest
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, OH

Yes–you're right—no one could cover all of the "new drugs" in one session, and Dr. Wuest returns to provide another workshop. Expanding on the information providing in the morning session, Dr. Wuest completes a comprehensive overview of "New Drugs"— the legal variety.

Closing NCPhA General Session

"How to Counsel Patients in Challenging Situations"
Ronald W. Maddox, Dean
Campbell University School of Pharmacy, Buies Creek, NC

Focusing on patient-pharmacist interaction, this second portion of the Pfizer series will provide valuable tips on increasing your effectiveness in patient interaction. As pharmacy moves away from traditional dispensing functions, communication and interactive expertise become more valuable. Plan to attend—and sharpen your skills!

ATTENTION PHARMACISTS LICENSED 50 YEARS OR MORE

If you have been a pharmacist for 50 years or more—licensed in 1944 or earlier—you are eligible for induction into the 50-plus Club. Inductees will be recognized at the Awards Session on Sunday, May 22, during the 114th NCPhA Annual Convention at the Myrtle Beach Hilton, Myrtle Beach, SC. Friends and family are welcome.

Contact the NCPhA office if you qualify for "membership " in this elite group of pharmacists who have served their profession for 50-plus years. Call 800-852-7343.

CALL FOR RESOLUTIONS

Resolutions from NCPhA members may be submitted for study or action at the 114th NCPhA Annual Convention. Resolutions help guide NCPhA policy, planning, and actions. Each resolution is reviewed, in advance by the Resolutions Committee for appropriateness and form. Resolutions are presented by the Resolutions Committee to the NCPhA membership during the 1st and 2nd General Sessions. You may submit your resolution in writing by May 10, 1994 to:

Lori Setzer
2662 Wyman Road
Winston-Salem, NC 27106

Special Thanks to our Convention Sponsors (to date)

Bristol Myers Squibb

Burroughs Wellcome Co.

Geneva Pharmaceuticals

Glaxo Inc.

Marion Merrell Dow

Owens Brockway

Searle

The Upjohn Company

Wyeth Ayerst Laboratories

Myrtle Beach Hilton Oceanfront Golf Resort

RESERVATION REQUEST
MYRTLE BEACH HILTON
SOUTH CAROLINA

NC Pharmaceutical Association
May 22–25, 1994

Please Note:

We have reserved a block of rooms for The NCPhA Annual Convention at the MYRTLE BEACH HILTON in South Carolina. Your room reservation should be made directly with The Hilton. Please specify the type of room desired and advise them you are attending the NCPhA Convention.

Direct correspondence and phone calls to:

MYRTLE BEACH HILTON
10,000 Beach Club Drive
Myrtle Beach, SC 29572-5304
1- 800-248-9228

☛ One night's deposit is required to guarantee reservation. Reservations must be cancelled 72 hours prior to arrival to ensure advance deposit refund.

✂ *detach and mail*

ROOM RESERVATIONS FOR: **N.C. PHARMACEUTICAL ASSOCIATION**

Type of Room *(check desired options)*	**Group Rate**
❑ Single Room	$105.00
❑ Double Room	$105.00

(Rate does not include tax; check-in 4:00 p.m., check-out 11 a.m.)

Please reserve accommodations for:

Name(s) _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Hilton Honors # _____

Arrival Date _____ Time _____ Departure Date _____

❑ Check or money order enclosed Credit card: ❑ Mastercard ❑ Visa

Credit card number _____ Expiration Date _____

Signature _____

North Carolina Pharmaceutical Association 114th Annual Convention

May 22-25, 1994
Myrtle Beach Hilton
South Carolina

- **Quality Continuing Education**
- **Awards**
- **Presidents' Reception**
- **Auxiliary Meetings**
- **Party by the Pool**
- **Golf and Tennis**
- **Night at the Carolina Opry**
- **Dancing**
- **Special Exhibit Program**
- **Sand, Sun and FUN!**

Use the pull-out registration on the next page and register today!

Convention Registration Form

114th Annual Convention of the NCPhA and Affiliated Auxiliaries

☛ Instructions/Special Information:

Complete Sections A-D. Payment must accompany convention registration form to be processed. Convention registration is required to attend any function. Tickets must be purchased/requested for all functions through the NCPhA office or registration desk. Tickets will be taken up at the door. Anyone not presenting a ticket will not be permitted to enter.

✎ Section A: Meeting Registration *(print clearly)*

Last Name _____ First Name _____

Spouse/guest _____

Name for Badge _____ / Name for spouse/guest badge _____

Address _____

City,State,Zip _____

( ) _____ Home Telephone ( ) _____ Business Telephone

Is this your first NCPhA Convention? [ ] yes [ ] no

✎ Section B: Registration Fees

✎ Section C: Events/Special Fees

Refer to Convention Program for specific times for events.

REG=Included in Convention Registration

# tickets	*Event /Day of Event*		
____	PharmPAC Meeting–*Sun*	REG	
____	Awards Program–*Sun*	REG	
____	Presidents' Reception–*Sun*	REG	
____	Banquet–*Sun*	$30	____
____	Kappa Psi Alumni Breakfast–*Mon*	$12	____
____	UNC Alumni Assn. Breakfast–*Mon*	$12	____
____	1st General Session–*Mon*	REG	
____	*WA Low Country Tour & Tea–*Mon*	REG	
____	Golf Tournament–*Mon*	$15	____
____	Tennis Tournament–*Mon*	REG	
____	Leadership Workshop–*Mon*	REG	
____	Consultant Workshop–*Mon*	REG	
____	New Drugs Part II Workshop–*Mon*	REG	
____	Food and Fun by the Pool–*Mon*	$18	____
____	TMA Dance by the Pool–*Mon*	REG	

CATEGORY	DAY	SUN	MON	TUES	WED	
✔ *appropriate category*		*circle day(s) attending*				
❒ NCPhA Member	$100	$20	$35	$35	$30	____
❒ WA Member	$80	$5	$50	$30	$NC	____
❒ TMA Member	$50	$10	$25	$15	$10	____
❒ Non-Member	$120	$25	$40	$40	$25	____
❒ Spouse/Guest	$80	$15	$30	$30	$15	____
❒ Exhibitor	$60	$15	$30	comp	$15	____

❒ Pharmacy Students & May Grads. –NO REGISTRATION FEE–

"Section B" TOTAL $ ____

____	Exhibits/Apron Luncheon–*Tues*	REG	
____	*WA , Luncheon,& Installation of Officers–*Tues*	REG	
____	"A Carolina Cookout" –*Tues*	$17	____
____	Carolina Opry–*Tues*	$13	____
____	Ice Cream Sundae Bar–*Tues*	REG	
____	3rd General Session–*Wed*	REG	
____	WA Car Raffle	$100	____

"Section C" TOTAL $ ____

☛ **Must be registered as a Woman's Auxiliary member to attend*

✎ Section D: Payment

Add "Section B Total" to "Section C Total" and enter the amount on the line below

PAYMENT TOTAL $ _____

Method of payment *(✓ appropriate answer)*

❒ Check enclosed made payable to NCPhA

❒ Visa ❒ Mastercard

Card # exp. date

Card Holder's Signature

☛ **CANCELLATION POLICY: Cancellations must be in writing and postmarked no later that May 18. Registration refunds will be assessed a $15.00 cancellation fee. No refunds will be made after May 18.**

Return completed registration by MAY 18th to:

NCPhA
P.O. Box 229
Chapel Hill, NC 27514-0229

Questions? Call NCPhA 1-800-852-7343

North Carolina Board of Pharmacy Exam Review

Myrtle Beach Hilton
South Carolina
May 22, 1994

Registration Form

Please complete the information below to register for the Board of Pharmacy Exam Review. If you wish to register for additional convention activities, please complete the "Convention Registration Form" on the previous page. For hotel reservations please use the "Reservation Request" on page 18. Payment must accompany registration form(s) to be processed.

Please use one form per registrant.

Last Name (please print) First Name Nickname

Address

City State Zip

Telephone University Affiliation

Board of Pharmacy Exam Review and Luncheon $35
☛ *refer to the enclosed Board of Pharmacy Exam Review Program on page 15 for specifics.*

Method of Payment *(check appropriate box)*

❑ My check is enclosed for $35 made payable to NCPhA ❑ Visa ❑ Mastercard

Card # Expiration date Signature

✉ **Please return to:**
NCPhA, P.O. Box 151, Chapel Hill, NC 27514

For hotel reservations use the "Reservation Request" on page 18.
☛ *Do NOT mail hotel reservations to NCPhA.*

NCPHA MEMBER HEADS UP SENIOR PHARMASSIST

NCPhA Member Gina Upchurch is coordinating a new program, Senior PharmAssist, in Durham County. Senior PharmAssist is designed to provide low-income individuals who are 65 years of age or older with information about other prescription programs.

Using existing retail pharmacies linked via the Pharmacy Network National Corporation, these patients will have access to quality, coordinated pharmaceutical care. "An advantage to this system of assistance," notes Upchurch, "is that it uses currently available systems of delivery to increase the elderly's access to needed prescription medications." The computer network of pharmacies will allow an individual's medication profile to be constantly updated, regardless of which pharmacy the patient uses, and allow pharmacists to use this information while providing pharmaceutical care. Additionally, when patients apply for Senior PharmAssist, volunteer pharmacists and staff review their current medication regimen and answer any questions. This medication review service is available to all senior citizens in Durham County.

Senior PharmAssist: providing low-income individuals who are 65 years of age or older with information regarding safe and effective medication use, assistance in paying for prescription medications, and referral information regarding other prescription programs.

To receive financial assistance from the program, senior citizens must have incomes less than 124% of the federal poverty level, and not be eligible to receive Medicaid. When applying for Senior PharmAssist coverage, staff will review their current financial situation and try to refer them to other funding sources if they do not qualify for Senior PharmAssist. Once eligibility is confirmed, prescription coverage is granted for up to a six-month period. Patients must re-apply for coverage every six months.

The primary Senior PharmAssist benefit is payment for medications included on the geriatric formulary (developed by the Senior PharmAssist Formulary Committee) with a nominal co-pay. In a manner similar to current prescription card programs, patients will present their "credit card" to participating pharmacies, and the pharmacies will file claims for compensation. Pharmacies will accept current Medicaid levels of reimbursement for prescriptions paid for by the Senior PharmAssist program.

The concept for Senior PharmAssist was the result of Upchurch's research regarding access to prescription medications. Her research, completed as a component of her Public Health Education, revealed that lack of financial access to medications was part of the medication problem, but that polypharmacy (the use of multiple, sometimes unnecessary, medications) was also a contributor. Coordination of prescription information and medication regimen reviews address polypharmacy problems.

Senior PharmAssist is scheduled to begin operation in June 1994, in the Bulls City Business Center of Downtown Durham. This program will be evaluated throughout its implementation and operation, and may become a model program for the State. To learn more about how you can contribute to the Senior PharmAssist program, please contact Gina Upchurch at the Council for Senior Citizens, (919) 688-8247.

PHARMACY BOARD LEADERS FORUM

Nearly fifty leaders were involved in the 1994 forum, representing the NC Pharmacy Board, the NC Pharmaceutical Association, the UNC School of Pharmacy, the Campbell University School of Pharmacy, the NC Chapter of Consultant Pharmacists, the NC Society of Hospital Pharmacists, the NC Retail Pharmacy Association, the chain drug stores, the drug wholesale companies, the NC Division of Medical Assistance, the NC Division of Adult Health, Duke University Medical Center, and Glaxo, Inc.

PHARMACY BOARD LEADERS FORUM

In early February, the North Carolina Pharmacy Leaders Forum convened in Southern Pines, at the Mid-Pines Resort and Hotel. Sponsored by the Board of Pharmacy, this was the ninth such gathering, designed to bring together all aspects of pharmacy in North Carolina to discuss current issues. As W. Whitaker Moose, the originator of the conference, said, "This is a unique gathering of individuals in pharmacy, allowing for discussion of a variety of issues. Our ability to share information and present viewpoints in a positive manner speaks well for North Carolina pharmacy." Moose is currently President of the Board of Pharmacy and served as Chairperson of the Forum.

Agenda items are solicited from forum participants, and covered a wide range of issues. The 1994 agenda included health care reform, the use of pharmacy technicians, the promotion of pharmaceutical care, legislative activities, the Pharmacists' Recovery Network, and OBRA '90. Health care reform discussion included national and state proposals, and initiatives in other states. Discussion of legislative and regulatory activities included the "flea market" bill (requiring a bill of sale for quantities of merchandise), pending Pharmacy Board rules for mail-service pharmacies, and the expansion of the number of State Board inspectors to provide for routine inspections.

Students, faculty, and deans from the University of North Carolina and Campbell University reported on current activity in the Colleges of Pharmacy. Joe Whitehead presented the report of Phase III of the Pharmacy Task Force, unveiling plans to enable the pharmacists of North Carolina to reach a higher level of professional practice. Phases I and II of the task force gathered and distributed the perceptions of the patients, prescribers, and payers. This task force was originally formed in 1989, a result of discussions at that year's Pharmacy Leaders Forum about the prevalence of physician dispensing and expansion of mail-service pharmacy.

Outcomes of the meeting include the formation of a committee to examine the role of pharmacy technicians and the appropriate use of technology, and to investigate options for training and certification of technicians. Additionally, a legislative roundtable was developed to discuss the legislative activities pursued in the interest of North Carolina pharmacy, on the state and national level. The "roundtable" is tentatively scheduled to meet quarterly to share information about current legislative activities of individual groups, and discuss political strategies. Another committee was formed to develop a position statement on the role of North Carolina pharmacists in health care reform. The NCPhA will also pursue the development of a study to demonstrate the link between patient counseling, compliance, and savings in health care costs.

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AIR FORCE

WOMAN'S AUXILIARY BALL

On January 29, nearly 30 couples gathered at the home of Henry and Tracey Smith for this gala event!!

Hosts—Tracey and Henry Smith

Ham Underwood, Teamie West, Henrietta Underwood, Maxine West

Ina and Joe Whitehead

Eloise and Jack Watts

Gary Salamido, Ray Wolf, Jane Wolf

WOMAN'S AUXILIARY NEWS

The first few months of 1994 have been very busy for the Woman's Auxiliary to the North Carolina Pharmaceutical Association. In late January, Tracey and Henry Smith hosted a formal ball, with proceeds being donated to the Auxiliary fund to be used to refurbish the Institute of Pharmacy. More than 25 couples attended the event, and as pharmacist Al Lockamy noted, it was the "event of the century."

In early February, the Executive Board held their Mid-Winter meeting at the Institute of Pharmacy, discussing issues including scholarship funds, emergency loan funds, future fundraising activities, and Annual Meeting activities. The primary spring fund-raiser involves the opportunity to buy a 1994 Buick Roadmaster—for the unbelievable price of $100. (Of course, that price requires that you hold the one ticket out of 400 tickets that is selected, but it would be quite a bargain!) Details of the giveaway were included in the January *Digest*. For more information, call NCPhA at 1-800-852-7343.

Plans for the Annual Meeting include the "Low Country Tea and Tour" on Monday, the annual Walk-A-Thon, and the drawing for the winner of the '94 Buick Roadmaster. All this is in addition to the regular business meeting and installation of Auxiliary officers, and the social events of the Convention. Make plans now to join us in Myrtle Beach!

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PHARMACY CRIME

FRAUD

Woman Facing 15 Drug Charges

Linda M. Hadley, a North Wilkesboro woman, has been arrested and charged with 15 felonious counts of obtaining controlled substance by fraud or forgery. Hadley was charged in connection with an incident reported by a Revco pharmacist, in which a prescription for phentermine was increased from 20 to 30 on 15 different occasions between January 26 and the end of October.

The Journal Patriot
North Wilkesboro, NC
12-30-93

Raeford man charged with 59 forgeries

James McPhaul has been charged with 59 counts of obtaining a controlled substance by forgery. Facing charges in Southern Pines, Aberdeen, and Pinehurst, McPhaul is accused of forging prescriptions for painkiller medications at several Moore County pharmacies. The investigation was started after the NC Board of Dental Examiners noticed a large number of prescriptions written under the name of a Southern Pines dentist, Lawrence Bullard. Investigators believe McPhaul used a prescription pad taken from Bullard's office.

The Citizen News-Record
Aberdeen, NC
1-24-94

VANDALISM

Robbers break into Rite Aid pharmacy

Early Christmas Eve morning, suspects smashed through the front window of the Rite Aid Pharmacy at West End Plaza and removed an unknown amount of items including controlled drugs. The incident closed the pharmacy until noon that day.

The Andrews Journal
Andrews, NC
12-30-93

Pharmacy Vandalized

Phil's Pharmacy, in Hickory, was vandalized in early January. Unknown suspects threw a rock through the front plate glass door of the pharmacy. There were no suspects at the time of the report.

The Record
Hickory, NC
1-9-94

CORRESPONDENCE COURSE

PATIENT COUNSELING ON HYPNOTICS PART III: THE NEXT GENERATION—ZOLPIDEM

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, R.Ph., Pharm.D.
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to discuss the treatment of insomnia with imidazopyridine derivative hypnotics, notably zolpidem.

Objectives

At the conclusion of this lesson, the participant should be able to:

1. identify the pharmacologic, pharmacokinetic, and toxicologic actions of zolpidem;
2. list specific activities of zolpidem that may offer therapeutic advantages over benzodiazepine derivatives; and,
3. demonstrate knowledge of appropriate information to pass along to patients when counseling on hypnotic use.

Insomnia

While insomnia and daytime drowsiness are two of the most common complaints, reported in approximately 32.5 million Americans, studies suggest that a significant number of serious insomniacs remain untreated.

It is becoming increasingly clear that poor night-time sleep and resulting next-day drowsiness are causes of diminished ability to concentrate, memory impairment, failure to accomplish daily tasks, and interpersonal difficulties. They are also a major contributor to work-related accidents and lost productivity, as well as traffic accidents. The U.S. Department of Transportation reports that 200,000 automobile accidents are caused each year by drivers who fall asleep at the wheel.

The ideal hypnotic drug should induce sleep soon after ingestion and sustain it for the expected duration without episodes of nocturnal or early morning awakenings. Its action should not be so long that it causes *morning hangover* and impaired daytime performance. Patients should not develop tolerance or dependence to it when used on consecutive evenings. It should not alter the patient's natural sleep patterns or induce next-day drowsiness, rebound insomnia or amnesia. It should possess a wide margin of

safety. The ideal hypnotic should make abnormal sleep normal, while not making the sleep of a normal sleeper abnormal. When the drug is discontinued, the patient should not experience withdrawal symptoms. Moreover, it should not cause significant drug-drug or drug-food interactions.

The Consensus Development Conference on Drugs and Insomnia, in 1983, concluded that benzodiazepine derivatives are closest to possessing the properties of the ideal hypnotic drug. Conference members reached their consensus after considering all of the then-marketed hypnotics including barbiturates, nonbarbiturates and benzodiazepines. However, conference members also recognized that benzodiazepine-derivative hypnotics fell short of being ideal because of adverse effects associated with their use, such as rebound insomnia, anterograde amnesia, next-day drowsiness and dependence. They affirmed an important point, that "...the search for new and better treatments for insomnia should continue."

This lesson previews the *next generation* of hypnotic drugs: the imidazopyridines. The pharmacologic, pharmacokinetic and therapeutic properties of the first hypnotic in this new class of drugs to be marketed, zolpidem, is presented.

Background

Zolpidem tartrate (Ambien) is a new hypnotic drug that is chemically unrelated to either the barbiturates or the benzodiazepines. It has been marketed in Europe since 1987. It was approved for marketing in the U.S. in late December, 1992, and introduced into therapy in the Spring of 1993. Zolpidem is indicated for the short-term treatment of insomnia.

Zolpidem

Zolpidem is classified chemically as an imidazopyridine derivative. It appears to be the most sedation-specific hypnotic to date, with little, if any, anxiolytic, anticonvulsant or muscle relaxant activity.

Zolpidem and the other imidazopyridine derivatives react selectively with omega-1 subtype physiologic receptors in the brain. The omega receptors (previously called benzodiazepine receptors) are part of a molecular complex on nerve cells that are triggered by GABA (gamma aminobutyric acid).

GABA is an inhibitory neurotransmitter which, when it activates responsive receptors, allows chloride ions to enter into the neuron. This raises the threshold necessary to fire neurons which stimulate the higher centers of the brain. This, in turn, reduces CNS activity and allows sleep to occur. Both the benzodiazepines and the imidazopyridines react with omega-1 receptors and enhance the ability of GABA to inhibit CNS activity, and induce sleep.

There are three known subtypes of omega receptors. The omega-1 and omega-2 subtype are located in the brain. Omega-3 receptors are found in the periphery. Benzodiazepine derivatives activate all three omega receptors. This is why they are not only hypnotics but are also anxiolytics, anticonvulsants and muscle relaxants.

Benzodiazepine derivatives activate both central (omega-1 and omega-2) and peripheral (omega-3) receptors. This nonselectivity is thought to be responsible for their nonspecific therapeutic actions. Zolpidem, on the other hand, is reported to cause sedation selectively without inducing significant skeletal muscle relaxation or exhibiting anxiolytic or anticonvulsant activity in doses prescribed for hypnosis. Its selective action can be compared to triazolam (Halcion) at various dosage levels. Zolpidem produces sedation at low doses without evoking muscle relaxant or anticonvulsant effects. Typical of benzodiazepines, triazolam has a broad range of action at an equivalent low dose. With increasing doses, the spectrum of action also expands. This low-dose, sedative-specific action of zolpidem is an important advantage for the management of insomnia.

Using polysomnography (the process for recording sleep physiology by measuring movement of the eyes and muscles elec-

tronically), clinical studies have investigated zolpidem's action as a hypnotic with emphasis on how the drug affects sleep architecture. It shortens the onset (sleep latency) of stage 1 which is the transition period between wakefulness and sleep. Zolpidem can also increase the duration of sleep.

Sleep efficiency is a means for gauging the efficacy of a hypnotic to maintain sleep. Sleep efficiency is expressed as the ratio of the percentage of time a person is asleep divided by the total time in bed.

A study has demonstrated the statistically significant results of zolpidem (10 mg) on sleep efficiency when administered nightly over 35 days. This study also supports the safety and effectiveness of zolpidem for chronic treatment.

Another desired outcome for a hypnotic is to preserve *sleep architecture* or sleep quality. A hypnotic must be evaluated for its effects on the various elements or components of sleep. Zolpidem preserves, and slightly increases, NREM (non-rapid eye movement) stages 3 and 4 sleep activity. Recall that NREM stages 3 and 4, collectively, are called *delta* (deep, restorative) sleep which is defined as the most restful sleep period.

Zolpidem has only minimal effect on modifying sleep architecture when used at doses up to 10 mg. At higher doses, it may prolong the REM latency, and decrease total REM (rapid eye movement) in the first four hours of sleep. However, some reports show that zolpidem may actually increase total time spent in delta sleep in some insomniac patients.

The tendency to develop tolerance to zolpidem has been investigated extensively. Only a slight degree of tolerance is reported. In clinical investigations, there does not appear to be significant loss of efficacy with continued administration for up to three months. This observation, and the results of animal trials, infer that tolerance develops slowly, and to only a small degree.

Zolpidem has been evaluated for abuse potential. In one clinical trial, 15 men who had a history of hypnotic drug abuse received increasing doses of zolpidem, triazolam or placebo given in a double-blind, cross-over design. Both drug treatments increased subjective responses which are reported to be desirable by abusers of sedative drugs. Zolpidem and triazolam showed little difference in this respect. Zolpidem was correlated with adverse effects including nausea and vomiting, lightheadedness, dizziness, and queasiness. Particularly troublesome at higher dosages, this would tend to decrease the abuse liability of the drug. Like the benzodiazepines, zolpidem is classified as a Schedule 1V controlled substance by the Drug Enforcement Agency.

Withdrawal symptoms following long-term administration have not been reported. Although it is typical for patients to have at least one night of sleep disturbance after discontinuing benzodiazepines (this phenomenon is known as *rebound insomnia*), studies with zolpidem have shown no evidence of rebound insomnia on discontinuation of treatment.

Pharmacokinetics

Following oral administration, zolpidem is rapidly and completely absorbed from the GI tract. Bioavailability of approximately 70 percent is achieved after doses of 5 to 20 mg. The mean peak plasma drug concentration occurs approximately 2.2 hours after administration.

Zolpidem is bound to plasma protein by approximately 92 percent. The fraction of unbound drug in plasma can increase by 11 percent in patients with cirrhosis of the liver, and 15 percent in individuals with chronic renal insufficiency. The drug is metabolized completely. Three primary metabolites have been identified, all of which are devoid of significant pharmacologic activity.

Elimination half-life ranges from 1.5 to 2.4 hours in healthy persons. In persons with cirrhosis, the half-life is increased to 9.9 hours. In persons with renal disease, the half-life will be increased to 3 hours. It is, therefore, recommended that patients with hepatic or renal disease receive lower doses. The same is true for elderly patients. The

usual adult dose is 10 mg while the dose for geriatric patients is 5 mg.

One investigation reported the results of two 3-month trials that compared zolpidem with triazolam. These were large, out-patient studies of 260 patients who received zolpidem 20 mg or triazolam 0.5 mg each night for 90 days. End points measured were sleep latency and duration, and overall sleep quality. Both hypnotics provided significant improvement over placebo in all measured responses. There were no statistically significant differences in any end points between zolpidem and triazolam.

A professional development program made possible by an educational grant from

SEARLE

Elderly persons may display slightly higher peak blood concentrations and t1/2 values than younger persons. The same pharmacokinetic parameters are reported to be reduced in pediatric patients. As stated earlier, zolpidem is available in a 5 mg dosage strength for geriatric use.

The profile of the clinical effects and safety of hypnotics is important for geriatric patients because their sleep patterns are, on average, of shorter duration and more fragmented than those of younger persons. They experience less delta (restful) sleep and are more likely to complain about insomnia. Additionally, they are more sensitive to the effects of centrally acting drugs. Because their metabolic and excretion processes are reduced due to the aging process, elderly persons are more prone to side effects.

One interesting study looked specifically at these factors in 30 elderly non-insomniac volunteers. The study was a randomized, placebo-controlled, three-period crossover study to determine the effect of 5, 10, 15 and 20 mg doses of zolpidem versus placebo.

Polysomnographic studies showed a significant decrease in sleep latency and increase in sleep efficacy at all doses. When questioned about their subjective feelings, the subjects reported falling asleep faster and easier, with fewer awakenings and improved total sleep time and sleep quality. There were no consistent effects on next-day memory or performance.

Adverse Effects and Toxicity

Adverse effects reported for zolpidem are extensions of its sedative action and are dose-related. Those noted include somnolence, lightheadedness and dizziness. Gastrointestinal upset (nausea, vomiting, and pain) and headache are also reported.

While it is difficult to generalize about the potential for adverse effects in every patient, there has been a report on the results of five clinical trials which evaluated the potential of zolpidem to cause adverse psychomotor performance. At times up to 11 hours after zolpidem administration and at doses up to 20 mg, there were no residual effects on psychomotor function or daytime sleep latency.

Zolpidem does not appear to adversely affect the respiration rate during sleep in otherwise healthy patients, nor does it appear to modulate arterial blood gas measurements or control of breathing in persons with severe chronic obstructive pulmonary disease. However, since zolpidem complicates breathing problems in patients with obstructive sleep apnea, it should not be given to persons with this disorder.

Safety in overdosage is not as clear as with benzodiazepines. However, no fatalities have been reported with dosages up to 400 mg.

Flumazenil (Mazicon), a benzodiazepine receptor antagonist, is an effective antidote for zolpidem.

Drug Interactions

A number of studies have reported on zolpidem's potential to cause drug interactions. The drug's pharmacokinetics were not modified when given concurrently with chlorpromazine (e.g., Thorazine) 50 mg, haloperidol (e.g., Haldol) 2 mg, or imipramine (e.g., Tofranil) 75 mg. Moreover, there were no alterations in pharmacokinetic values of the psychotic medications. Repeated administration of cimetidine (Tagamet) 1 gm per day or ranitidine (Zantac) 150 mg twice daily for 19 days did not affect the pharmacokinetics of the H_2 blockers. As well, there was no change in the pharmacokinetics of the H_2 blockers. No effect on prothrombin time was seen after four days of zolpidem 20 mg given to individuals receiving warfarin.

Dosage and Administration

The efficacy of zolpidem to induce sleep has been evaluated in oral doses ranging from 5 to 40 mg. Most published data so far have indicated there are no differences in hypnotic effectiveness between 10 and 20 mg doses, although higher doses are associated with increased adverse effects. The recommended dose, is therefore, 10 mg administered immediately before retiring after the decision is made because of the short sleep latency period. Since there is a possibility of altered pharmacokinetics and increased risk for adverse effects, the dosage in elderly and debilitated persons should be 5 mg. If ineffective, it may be increased to 10 mg in these patients.

Summary

The imidazopyridine derivative hypnotics are a new group of drugs. Rarely have drugs been so close to matching the "ideal" therapeutic agent. Table 1 summarizes the activity of zolpidem in treatment of mild sleep disturbance. Table 2 summarizes its use by elderly patients.

Studies of zolpidem have shown the imidazopyridine derivatives are well suited for patients with short-term or mild sleep disorders. It has a rapid onset of action. It also reduces night-time awakenings, increases total sleep time, and preserves natural sleep stages. It has not been associated with tolerance, and has not shown unwanted next-day CNS side effects. The imidazopyridines appear to be particularly promising for use by elderly patients.

For example, zolpidem does not require hepatic metabolism and it has a low level of side effects. It helps preserve delta and REM sleep, and has shown minimal rebound insomnia at recommended dosages. It has demonstrated little or no next-day sedation thereby lessening the chance of falls and accidents that the elderly are predisposed to with other hypnotics. Zolpidem has not been

Table 1

Summary of Zolpidem Activity in Treatment of Mild Sleep Disturbances

- Rapid onset of action
- Increased total sleep time
- Reduced nocturnal awakenings
- Tolerance not a significant issue
- Low incidence of next-day unwanted CNS side effects
- Natural sleep stages preserved

associated with memory loss, another potential problem for geriatric patients.

Patient Advice For Zolpidem (Ambien)

- The intended use for this medication is to treat insomnia.
- You should take this medication with a glass of water after you have decided to go to sleep. Be sure to allow enough time to completely swallow the tablet before lying down.
- Most people do not experience next-day drowsiness or "hangover" from this medicine. However, if you do notice you are drowsy in the morning, do not drive a car or perform hazardous tasks until the drowsiness passes.
- It is important that you take this medicine exactly as your doctor has instructed. Do not take more doses or take longer than instructed without consulting your doctor.
- Some people experience disturbed sleep for 1 or 2 nights after discontinuing sleeping medications. This should go away in a few days. If it continues, contact your doctor.
- Do not take a nonprescription sleep aid without first asking your doctor.
- Tell your doctor if you are pregnant, plan to become pregnant or are breast-feeding an infant.
- Side effects from this medication are relatively rare. However, tell your doctor if the following occur: unusual thoughts, dreams or nightmares, persistent fever or sore throat, mouth sores, difficulty breathing, irregular heartbeat, yellow coloration of the skin or eyes, excessive confusion or excitement.
- Do not keep or use outdated medication.
- Keep all medications out of the reach of children.
- Federal law prohibits giving this medication to any person other than yourself.

Table 2

Summary of Action of Zolpidem in Elderly Patients

- Stages 3 and 4 and REM preserved
- Not associated with next-day memory loss
- Low abuse and dependence potential
- Minimal to no rebound insomnia at recommended doses
- No active metabolites formed
- Little or no daytime sedation reported

CONTINUING EDUCATION QUIZ

Patient Counseling on Hypnotics Part III: The Next Generation — Zolpidem

1. Zolpidem is a member of which of the following chemical groups?
   a. Barbiturate
   b. Imidazopyridine
   c. Catecholamine
   d. Phenothiazine

2. Zolpidem appears to exert its action on which of the following neuronal receptor sites to the greatest extent?
   a. Omega-1
   b. Omega-2
   c. Omega-3
   d. Omega-4

3. The neurotransmitter that zolpidem modifies to the greatest extent is:
   a. acetylcholine.
   b. dopamine.
   c. gamma aminobutyric acid
   d. serotonin.

4. The neurotransmitter referred to in question #3 enhances the entry of which of the following ions into neurons?
   a. Sodium
   b. Bicarbonate
   c. Calcium
   d. Chloride

5. Which of the following pharmacologic actions is common to both the benzodiazepines and zolpidem?
   a. Antianxiety
   b. Hypnotic
   c. Anticonvulsant
   d. Muscle relaxation

6. Based on the results of polysomnographic studies, zolpidem has been shown to induce all of the following EXCEPT:
   a. decreased stage 3 and 4 portions of NREM sleep.
   b. increased duration of sleep.
   c. minimal modification of sleep architecture.
   d. shortened sleep onset.

7. The antidote for an overdose of zolpidem is:
   a. deferoxamine.
   b. atropine.
   c. physostigmine.
   d. flumazenil.

8. Which of the following groups of patients is LEAST likely to need a less-than-normal dose of zolpidem?
   a. Elderly patients
   b. Patients with cirrhosis
   c. Obese patients
   d. Patients with renal disease

9. The DEA has placed zolpidem in schedule:
   a. C-II.
   b. C-III.
   c. C-IV.
   d. C-V.

10. Which of the following is the correct advice to give a patient receiving a prescription for zolpidem?
   a. Take a tablet just before going to bed after you have decided to go to sleep.
   b. Take the tablet at least an hour before bed-time to give it time to work.

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THE NEXT GENERATION—ZOLPIDEM

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WHITE NAMED PARTNER IN LAW FIRM

Carol M. White, a pharmacist and attorney from Southern Pines, was named a partner in the Brown & Robbins law firm. White is a 1982 graduate of the University of North Carolina and a 1988 cum laude graduate of Campbell University School of Law. She practices in the area of civil litigation including family law, personal injury, workers' compensation and business litigation.

White's husband, Paul, is a pharmacist with Eckerd Drug.

NEW DURHAM PLANT MAY HIRE 75

Applied Analytical Industries, Inc., a pharmaceutical testing and development firm, plans to begin operations in Durham, hiring as many as 75 new employees. The Wilmington-based company works with companies such as Glaxo to provide analytical testing, formulations development, and assistance with regulatory approval.

BUSINESS PREPARES FOR NEXT CENTURY
Memories Remain

Red Springs Drug Store, the town's first pharmacy, was recently remodeled. Popular features such as the soda fountain and "sitting room" were replaced with modern facilities. Dusty Rhodes, current owner, commented that the upgrade was both cosmetic and functional, providing wiring system upgrades and modern shelving to accommodate greater inventory.

The pharmacy opened in 1890, and moved to its present building in 1906. Opened by Dr. Luther McMillan with pharmacist Blue Currie, Hiram Grantham Sr. developed the current operation. John Graham worked at the pharmacy in the 1910s and secured partial ownership in the 1920s. Reid Grantham, Hiram Grantham Sr.'s son, bought the company in 1966. Mr. Rhodes bought the pharmacy in 1980.

PHARMACY MARKS 100 YEARS IN KINSTON

Hood Pharmacy in Kinston is celebrating 100 years of business in Kinston, and 100 years of being run by a Hood. John Codgell Hood Jr., of the fourth generation of Hood pharmacists, has worked in the pharmacy since graduating from pharmacy school in 1952.

The pharmacy has changed significantly since 1893, evolving from an office supply and book store and seed department to the traditional soda fountain to its current apothecary atmosphere. Hood has also seen an evolution of pharmacy practice from the days of not discussing the prescription with the doctor or the patient to the current counseling requirements. John is a past president of the NCPhA and 1987 NC Pharmacist-of-the-Year.

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Test yourself! Answers at bottom of page.

1. Outpatient prescription medicines account for approximately what percent of total health care spending?
   a. 5% b. 10% c. 15% d. 20%

2. How many years of patent life typically remain once a new drug is approved for marketing?
   a. 17 b. 10-12 c. 3-5 d. 5-7

3. Which amount is the closest to the actual cost of dispensing a prescription in a full-service pharmacy?
   a. $2.00 b. $3.35 c. $6.00 d. $1.25

4. Out of every ten new drugs marketed, on average, how many achieve sufficient revenue to cover costs and make a profit?
   a. 8 b. 2 c. 6 d. 1

5. Considering drug prices and manufacturing wages in the U.S. & Mexico, how long do Mexicans work compared to Americans to pay for Rx drugs?
   a. same # hours b. Half as long c. more than twice as long

6. What is the current estimated cost of bringing a new drug to market?
   a. $175 million b. $359 million c. $500 million d. $100 million

7. Which component of health care costs are patients most aware of because they pay out of pocket?
   a. physician b. prescription c. hospital d. emergency room

8. What percent of sales, on average, is spent on research by research-intensive pharmaceutical manufacturers?
   a. 25 b. 16 c. 8 d. 11

9. Total health care expenditures have risen to almost 13% of GNP since 1960. How have pharmaceutical costs behaved as a % of GNP during that period?
   a. risen to 3% b. fallen to 0.5% c. held nearly constant under 1%

10. If pharmaceutical industry profits were eliminated, how much would this reduce total national health care costs?
    a. 3% b. 5% c. less than 1% d. 10%

Answers: 1 a. 5%; 2 d. 5-7; 3 c. $6.00; 4 b. 2; 5 c. more than twice as long; 6 b. $359 million; 7 b. prescription; 8 b. 16; 9 c. held nearly constant under 1%; 10 c. less than 1%

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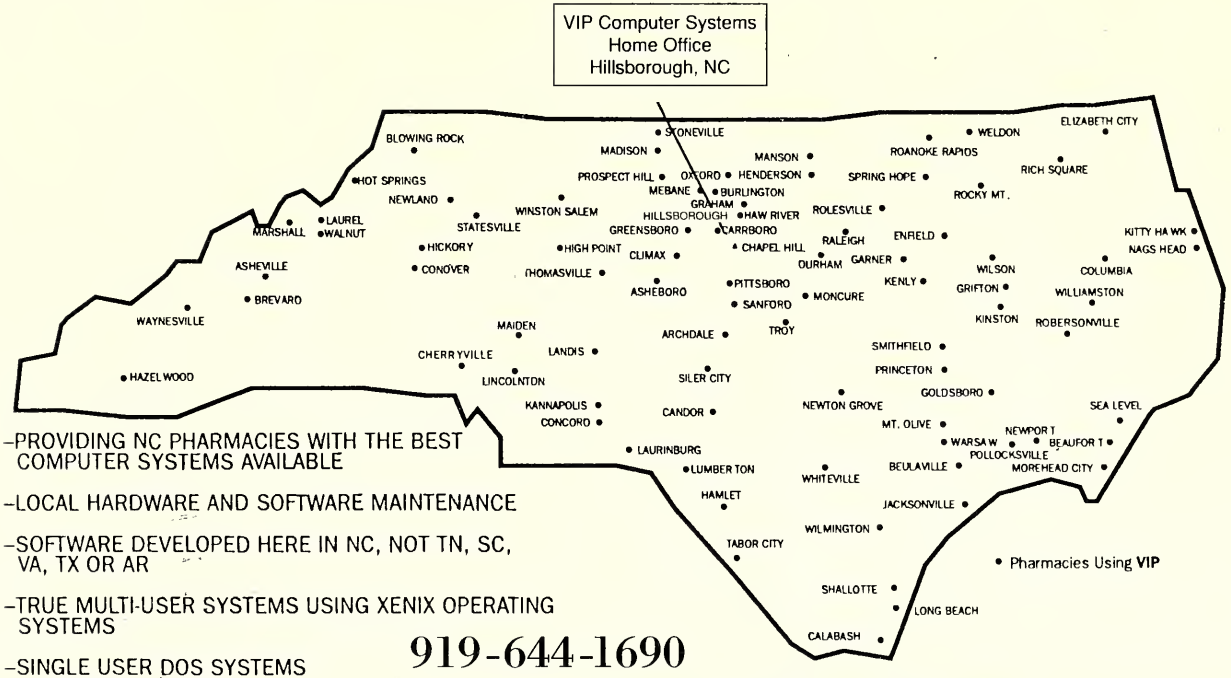

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David R. Work, 1993-94 President, National Association of Boards of Pharmacy. Story on page 7.

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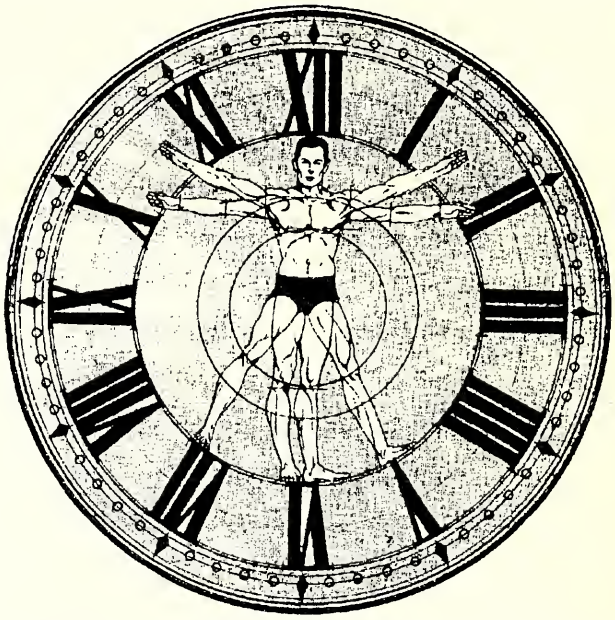

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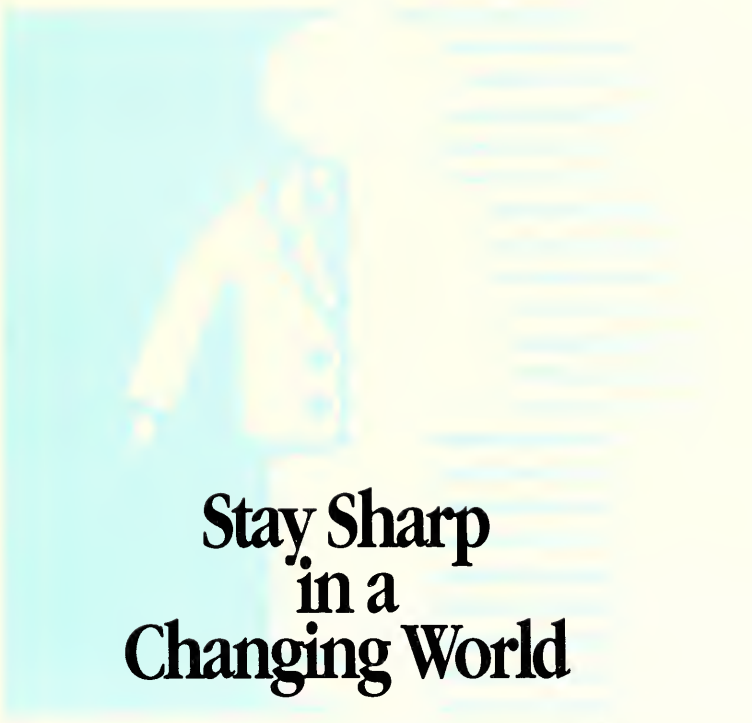

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NORTH CAROLINA PHARMACEUTICAL ASSOCIATION

Officers

President
W. ROBERT BIZZELL
3423 Buena Vista Court
Kinston, NC 28501
919•527•6929

President Elect
JOSEPH A. EDWARDS JR.
2025 ST. MARY'S ST.
RALEIGH, NC 27608
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Past President
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P.O. Box 147
Farmville, NC 27828
919•753•7111

Journal Staff

Editor and Publisher
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Associate Editor and Advertising Coordinator
TERRI M. LITTLE

Editorial Assistants
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CATHY H. JORDAN

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NCPhA Office
P.O. Box 151
Chapel Hill, NC 27514
919•967•2237 or
800•852•7343

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WHAT IS PHARMACY'S NO. 1 PROBLEM??

"Proper recognition of the pharmacist—by both the public and other medical practitioners—is Pharmacy's main problem.

To solve this problem, the profession should increasingly publicize the activities of the pharmacist. Perhaps a greater separation of the professional service aspect and the business aspect would help. Also, a good newspaper, magazine, radio, and TV public relations campaign could enhance the pharmacist's prestige.

The pharmacist could do a lot to enhance his public image by entering into all medical, political, civic, and institutional affairs in his area. Pharmacists have too long been willing to sit back and be known as the doctor's assistant or right-hand man—or be relegated to the position of a mere technician.

Pharmacists can also help by offering their services as drug consultants, . . .to nursing homes, etc.

Pharmacists should always refer to themselves as professionals."

C.E. Barnett
Idaho State Pharmaceutical Association
American Professional Pharmacist, December 1965

This statement was solicited by the American Professional Pharmacist journal in 1965. While things have changed since that time, this "call to action" from 1965 seems strikingly similar to opinions expressed today.

PRESIDENT'S MESSAGE

When Mrs. Jones picked up her prescription today, we spent quite a bit of time talking. We caught up on things in her family, talked about her regular medications, and discussed her new prescription. All pretty routine, but it was a good conversation—I think she's comfortable with her medications, and comfortable with me as her pharmacist.

"Rob is such a nice pharmacist! He always spends time with me—asking about my family, and checking how I feel. He took time today to talk about my new medicine—that one for my blood pressure.

Sometimes I think Rob knows more about medications than my doctor, but that can't be true. My doctor went to school for years to learn about being a doctor, but I really don't know what you have to learn to become a pharmacist. It is nice to have such a conscientious pharmacist, though, I know I'll always get just what the doctor ordered. I wonder what it takes to become a pharmacist? Does it take long to learn how to follow the orders on a prescription?"

How many patients like Mrs. Jones frequent your pharmacy? She's probably one of your "best" patients, but does she really know what you do? Does she know that you review the prescription for accuracy—for the correct dosage form, strength, and directions? Does she know that you keep a record of her prescription medications and her over-the-counter medications to be sure they will all work together? Does she know you are monitoring her for adverse reactions to the medication? That you are checking her compliance with her medication regimen? Does she know you are a great source of information on medication and health problems?

Mrs. Jones probably knows more than many of the patients out there, but she still doesn't know enough. When was the last time you explained to a patient what you were doing?

We are all comfortable with taking care of patients and providing medication. We know what we do, and we do it with every prescription—the review, the monitoring, the consultation, etc. But what does the patient physically **see** us doing? They see the medication transferred from one bottle to another, the generation of a label, and the label attached to the bottle. They may see us compound a prescription product, make a few telephone calls, and talk to each patient. In other settings, the patient rarely sees a pharmacist, they simply see the medication which a nurse administers. But can they see the medication review? The prescription review? The monitoring for compliance?**NO!**

When we see pharmacy overlooked in the health care system, this lack of visible activity contributes to that. When a patient visits a doctor's office, the nurse may take their temperature, blood pressure, and **do** a few other things. The doctor **examines** them, and **writes** the prescription. Doctors order lab tests, and look at X-rays. Those activities look like they require skill and education, but does moving and labelling a product look like it requires much?

To counteract this disadvantage, we need to tell patients what we are doing. The next time Mrs. Jones visits your pharmacy, **tell** her what you do. She doesn't need a lecture on the thought process, but try a phrase like "I checked this medication with the ones you are already taking...." Explain why you need the patient's drug allergies and medication information.

If they can't see what we do, we need to tell them about it.

W. Robert Bizzell, 1993-94 NCPhA President and owner of Realo Discount Drug Store in Kinston.

USP DRUG PRODUCT QUALITY ReviewW
A PUBLICATION OF THE USP PRACTITIONERS' REPORTING NETWORK℠

No. 40

WHAT'S COOL AND WHAT'S NOT

In order to guarantee product potency through the manufacturer's labeled expiration date, a product must be stored and packaged according to label specifications. The USP Practitioners' Reporting Network℠ (USP PRN℠) has received reports from practitioners confused about storage requirements. Practitioners have expressed concern about products appearing discolored, powdered, wet, or crystallized; having an unusual smell; or changing in consistency.

Consider the following. The label of Sulfacetamide Sodium Ophthalmic Solution USP, 10%, states that it should be stored in a cool place between 46° F and 59° F (8°–15° C). Practically speaking, where would the product be stored in pharmacies, hospitals, nursing homes, and patients' homes? Room temperature is generally 59–86° F and refrigerator temperature is generally 36°– 46° F (2°– 8° C).

STORAGE AND EXPIRATION DATES

The stability parameters of a drug dosage form can be influenced by environmental conditions of storage (temperature, light, air, and humidity). Required storage conditions must be included in the labeling of all Pharmacopeial articles and should be observed throughout the distribution of the article. Strict adherence to the storage requirements specified in the product labeling will help ensure product potency and stability through to the manufacturer's labeled expiration date. The manufacturer's expiration date only applies if these storage requirements are met from the time the product leaves the manufacturer through its handling by the dispenser or seller to the consumer. Ideally, the pharmacy's labeling, which indicates proper storage conditions for the consumer, should be reinforced during patient counseling. However, it is recognized that proper control beyond the dispenser or seller is difficult.

STORAGE DEFINITIONS

In some USP monographs, there are specific directions for stating the temperature at which Pharmacopeial articles shall be stored. For example, stability data indicate that storage at a lower or a higher temperature produces undesirable results. These directions apply except where the label on an article specifies a different storage temperature on the basis of stability studies for that particular formulation. The following are storage definitions, as defined in the *General Notices* section of the *USP XXII–NF XVII*, for recommended conditions commonly specified on product labels.

- Freezer—A place in which the temperature is maintained thermostatically between −20° C and −10° C (−4° F and −14° F).
- Cold—Any temperature not exceeding 8° C (46° F). A refrigerator is a cold place in which the temperature is maintained thermostatically between 2° C and 8° C (36°–46° F).
- Cool—Any temperature between 8° C and 15° C (46°–59° F). An article that requires cool storage, alternatively may be stored in a refrigerator, unless otherwise specified by the individual USP monograph.
- Room Temperature—The temperature prevailing in a working area.
- Controlled Room Temperature—A temperature maintained thermostatically that encompasses the usual and customary working environment of 20° C to 25° C (68°–77° F) that allows for brief deviations between 15° C and 30° C (59°–86° F) that are experienced in pharmacies, hospitals, and warehouses. Articles may be labeled for storage at "controlled room temperature" or at "up to 25°", or other wording. An article for which storage at *Controlled room temperature* is directed may, alternatively, be stored in a cool place, unless otherwise specified in the individual monograph or on the label. (See the entire revised definition of *Controlled Room Temperature* in the *Ninth Supplement* to *USP XXII–NF XVII*.)
- Warm—Any temperature between 30° C and 40° C (86°–104° F).
- Excessive Heat—Any temperature above 40° C (104° F).
- Protection from Freezing—Where, in addition to the risk of breakage of the container, freezing subjects an article to loss of strength or potency, or to destructive alteration of its characteristics, the container label must bear an appropriate instruction to protect the article from freezing.

WHAT'S COOL ON THE INTERNATIONAL FRONT?

The International Conference on Harmonization (ICH) is developing stability standards guidelines. The ICH Quality Working Group is composed of regulatory authorities and industrial organizations of the United States, Japan, and Europe working towards guidelines to be implemented by manufacturers. According to these guidelines, manufacturers, when conducting "real time" product stability studies, will use actual packaging and storage conditions according to the climatic zone in which the product will be marketed. Real-time storage testing would determine the product storage warnings and assign expiration dates to be adopted in its labeling. Of course, they would allow for expected occasional excursions from those conditions. A product labeled for storage up to 25° C (77° F) and a specific expiration date should remain stable and potent through that date if kept at a temperature no higher than 25° C and at a relative humidity similar to the climatic zone for which its expiration date was determined.

The four worldwide Climatic Zones recognized by ICH are based on observed temperatures and relative humidities, both outside and inside rooms, from which mean temperatures and average humidity values are calculated. Zone I, Temperate—includes the United Kingdom, Northern Europe, Canada, and Russia. Zone II, Mediterranean or Subtropical—includes the United States, Japan, and Southern Europe. Zone III, Hot and Dry—includes Australia, Argentina, and Egypt. Zone IV, Hot and Humid—includes Brazil, Ghana, Indonesia, Nicaragua, and the Philippines.

To report problems with drug products or for further information, call the USP Practitioners' Reporting Network℠ at 1-800-4-USP PRN

Issued 4/94

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AN INTERVIEW WITH DAVID R. WORK

by Michelle B. Jones

My discussion with David Work proved to be an enlightening as well as an enjoyable experience. As a pharmacy student at UNC, I sat in Mr. Work's Pharmacy Law class one short year ago and was overcome with intimidation. Today, I discovered a very different person. Mr. Work, I have learned, is a funny, enthusiastic, and caring man, dedicated to his job of protecting the people not just in North Carolina, but nationwide.

Jones: I would like to start by obtaining some background history. Tell me about your educational and career experiences.

Work: I am a native of Iowa and I grew up in Clinton, Iowa, a small town on the Mississippi River. It was a great place to grow up and a good place to be from, if you know what I mean. I went to the University of Iowa for pharmacy school, and I returned to a small town and worked in an independent drugstore for a period of time. Then, there came a time for me to make a decision, and I chose to go to law school. I packed up the family and moved a thousand miles to Denver. I went to the University of Colorado for law school. After law school, I went to Chicago to work with Blue Cross for a year on their legal staff. I decided very soon after starting at Blue Cross that practicing law was not for me. I thought about things I might want to do and decided I would like to teach in a pharmacy school. I moved here to Chapel Hill and spent four years teaching at UNC as an associate professor and associate dean. I then went to work with NARD for three years before I came to the North Carolina Board of Pharmacy for this position in 1976. This is probably the best job for someone like me, and I like it a lot.

Jones: What do you do as the Executive Director of the Board of Pharmacy?

Work: I am a friendly policeman. My job is to protect the health, safety, and welfare of the public. I administer licensure examinations to pharmacists to allow them to become licensed in this state, and also handle

David R. Work
Executive Director, NC Board of Pharmacy
President, National Association of Boards of Pharmacy

reciprocity, which is the act of a pharmacist licensed in one state transferring his or her licensure to another state by means defined by the state receiving the pharmacist. Another one of my jobs is to prosecute pharmacists brought for disciplinary hearings. I gather the facts to prosecute the party on trial and present the facts to the Board. I think that it takes a special kind of person to want to do that. Not everyone would want to do that. When it comes to actually taking a pharmacist's license, it would be very difficult for some people, but I'm here to protect the public.

Jones: What is the National Association of Boards of Pharmacy (NABP) and what is its purpose?

Work: NABP is a national association made up of state agencies such as ours, the North Carolina Board of Pharmacy. Its job is to promote licensure, and reciprocal pharmaceutical licensure. Toward that end, they have developed a national exam, and the states use that national exam in conjunction with their own state exams, to determine if candidates are safe to turn loose on the public. In the case that a pharmacist misbehaves, NABP also determines recommen-

dations for an appropriate penalty.

Jones: What are your responsibilities as President of NABP?

Work: First of all, I preside at meetings. We have two meetings a year, one in the spring which is a convention, and one in the fall. The November meeting alternates between an inspector's meeting and an executive officer's meeting. I also attend the executive committee meetings which are held periodically. As President, last fall I visited all, or almost all of the districts. NABP is divided into eight districts, and each has its own respective annual meeting that I attend. I visited seven of those this past year, starting in August and ending in November.

Jones: It seems like you get to do quite a bit of traveling. What are some of the places you have visited as NABP president?

Work: To start with, the district meetings are in nice places, for example, Hawaii. There was a five-week time period last year when my wife, daughter, and I traveled through twenty-four time zones. In that time, we went from Hawaii to Amsterdam and everywhere in between.

Jones: What made you want to become president of NABP?

Work: You may find this hard to believe, but I never really desired to become president. The national association has a rule as part of their constitution that the executive committee must have representation from each of the eight districts. When District Three, the southeastern district, was up for a place for representation, no one wanted to run. I happened to have more experience in NABP with committees, et cetera, than anyone else in the room. Therefore they chose me to be on the executive committee. Ordinarily the officer chosen goes through a series of terms up to vice-president and then president, so when my turn came up I decided to go ahead and "get it over with," so to speak. As a result, no one has ever run against me for the offices. I will never know if I really would have won an election or not, because no one has run against me.

Jones: As president of NABP, have you seen anything in pharmacy legislation that you think has changed or bettered the practice of pharmacy?

Work: The most important thing that I've seen is the adoption of patient counseling as a standard of practice by pharmacists. That was something that organized pharmacy had been promoting for twenty years. The federal legislation forced adoption of state laws, and the standard of practice as we know it changed just like that. A rule like that has got to benefit the patient. North Carolina is the only state in the nation that has a rule requiring the report of deaths due to drugs and devices dispensed in pharmacies. In the first year it was implemented, we discovered 15 deaths. Ten of those deaths were actually caused by drugs, and five of those ten were preventable with proper patient counseling. These deaths are excluding intentional suicides. So as far as I'm concerned, there is no doubt that patient counseling saves lives.

Jones: Are there any proposals that you have discovered through NABP that you feel should be addressed on a national level, or rules adopted by certain states that should go nationwide?

Work: Well, I really am disappointed that other states have not picked up on the "reporting of deaths due to drugs dispensed in pharmacies" legislation. I think it is useful information for the Boards of Pharmacy to have. Secondly, it's bothered me for years that at least 20% of our public cannot read. There is an additional percentage that cannot read because of a disability, but these 20% can't read because they don't know how. For some reason, the FDA and other organizations have a mental block about this. Where do you think these people get their information about drugs? Osmosis? It is a hard concept to get across to educated folk but it's true. How do they get prescription information? How do they get information about OTC drugs? They can't ask the pharmacist if they buy them in the supermarket. They get their information from T.V. and other ads. If they are lucky the

pharmacists will talk to them. That's not right. Why don't we do something about it? I feel like pharmacists just don't care. Some pharmacists argue that they just don't have time to counsel illiterate patients. Are we a drug business or a people business? Let's take an example: the incidence of penicillin allergies among the U.S. population is 1-2%, and still pharmacists ask religiously, "Do you have a penicillin allergy?" when dispensing a prescription for it. Here we have something twenty times as prevalent as a penicillin allergy and just as dangerous, yet we ignore it. We just don't care. One of the things that I think would be effective in this situation is pictograms. A standard set of common graphics, like highway signs, that patients can relate to. The United States Pharmacopoeia Convention has taken some steps to try to combat this problem. A good way to determine if a patient is illiterate is to ask them to read the prescription label back to you. For example, explain to a patient that the pharmacy label printer is malfunctioning, and that you would like to make sure that they understand the directions. If they hesitate or make excuses, there is a good chance that person is illiterate. This is a problem that must be addressed in pharmacy.

Jones: What are some things that you enjoy doing outside of your job and NABP?

Work: Well, I enjoy cooking. My wife and I made an arrangement when we married that I would do all of the cooking if she would do the cleaning. It's worked out real well. I also like to travel. I have another strange hobby as well—taking pictures of churches. I enjoy the architecture, and most of them have special meaning, no matter how simple. I also really like teaching. I still teach the law class that you took last year, and I enjoy it very much.

Jones: Is there anything else that you would like to add or advice you'd like to give?

Work: Yes. To students that are planning on going to law school—don't be a lawyer for the money, there are a lot of starving lawyers out there. I also want to stress how much I like my job. I like it because it's important, it makes a difference, and it is important because I do it.

Mr. Work is the father of three girls. He lives in Chapel Hill with his wife, Rebecca, and his youngest daughter, Susan. His eldest daughter lives in Wilmington; the middle daughter is located in the Triangle area. Mr. Work has published an impressive list of articles and papers on subjects such as illiteracy, drug pricing, and other various topics. He is also the author and editor of the North Carolina portion of the *N.C. Board of Pharmacy Newsletter.* Mr. Work has served on numerous committees with NABP and the USP Convention, Inc.

Michelle B. Jones is a pharmacy student at the University of North Carolina School of Pharmacy. Ms. Jones will graduate in May 1994 and conducted this interview while completing a rotation with the North Carolina Pharmaceutical Association.

THE PHARMACIST'S CHANGING ROLE

by Jay Major
Pharmacist in Rocky Mount

There are many changes affecting the practice of pharmacy today. One of these is the switch of prescription-only drugs to OTC (over-the-counter) status. The problem arises when people do not read the labeling on these products. Hence, your pharmacist becomes a very important resource for medication information.

The advantage a pharmacist has is knowledge not only of how the drug interacts in the body, but also of how the drug interacts with other drugs and with foods and the adverse effects the drugs has naturally or in a disease state.

An example of how your pharmacist can help you select the proper OTC drug is with cold remedies. Some cold treatments contain pseudoephedrine, which is an excellent decongestant, but can have an adverse effect on blood pressure, renal disease, and glaucoma.

A special concern of mine is the pregnant patient that tries to medicate herself; even aspirin can have a deleterious effect on the mother or fetus in certain instances. Speaking of aspirin, its effects can sometimes be subtle.

The class of drugs most often used to treat arthritis is NSAIDs (Non-Steroidal Anti-Inflammatory Drugs) whose beneficial action can be blocked when simultaneously taken with aspirin. This interaction is not damaging but will inhibit the desired effect of your prescription.

One of my many experiences with adverse reactions with OTC medications involved my mother. She was an asthmatic. She kept losing weight, what she was doing was improperly using an OTC asthma inhaler containing epinephrine, which was depressing her appetite, thus the weight loss.

As a pharmacist, my role as a primary health care provider has changed. The information I provide my patients is as important as the medication itself. Proper compliance with a medication regimen can have a dramatic effect on the outcome of the therapy prescribed.

When in doubt about either your prescription or OTC medications, "ask your pharmacist."

From the Rocky Mount Telegram, 2-19-94

The newspaper editorial page is a site for discussion of issues. In a time when the structure and system for the delivery of health care is changing rapidly, the role of the pharmacist must be explained many times and in many ways, including the editorial page. For ideas and suggestions for a "Letter to the Editor," contact NCPhA (800-852-7343). If you have recently written a letter to the editor, please forward a copy to NCPhA.

—The Editor

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AIR FORCE

IMMUNIZATION AND THE PHARMACIST

by Susan Winckler, Pharmacist

Immunization. Vaccinations. Every pharmacist knows about them, but traditionally our involvement with immunizations has been limited. Roles are changing with health care reform, and we now have the opportunity to become more involved in immunization education and administration. It is an opportunity too important to be missed.

In April 1993, the Clinton Administration issued an updated National Vaccine Plan, with a goal of improving vaccination rates in this country. The United States has an acceptable immunization rate for school-age children, but less than 60% of children under the age of 2 receive the full complement of recommended immunizations. This deficiency encourages the spread of preventable diseases, such as measles and mumps, and hinders efforts to eliminate other diseases like polio and diphtheria.

Cost is usually a barrier to implementing any health care program. With immunizations, however, cost has not been the most significant problem; free vaccinations have not appreciably increased immunization rates. Barriers to immunization come primarily from lack of awareness and access.

Current state and federal regulations require full immunization of children before they can attend school, but, except for some local child care regulations, immunization of preschool children is not required. While the potential is great to increase immunization rates by adding such requirements for licensed day-care centers, this would not affect children in family day-care or at home. A concerted effort is needed from health care providers to address immunization education, cost, access, distribution, and record keeping. Pharmacists can play a key role in many of these areas.

Education and Access

Efforts to educate parents about the benefits of immunizations may be more effective than regulations. Pharmacists can be a great asset to educational efforts by raising the public's awareness of immunization requirements. We are in an ideal position to talk with new and expectant parents about the importance of immunization. When parents are in the pharmacy for a prescription, we can ask them if their children are immunized and explain the immunization schedule.

Educational programs are important, but parents also need access to health care facilities and to professionals who can administer vaccines. Pharmacies distribute health care information, and pharmacists are a valuable resource for providing additional information or answering questions. Most people go to a pharmacy several times a month; we have access to parents and we should use it.

Pharmacists are often the first contact with the health care system for many parents and young children. We provide recommendations on when to seek medical care and on the use of over-the-counter and prescription medications. We can easily address the value of immunization and vaccinations.

Registry and Tracking System

A coordinated effort by health profession-

als would greatly improve age-appropriate immunization rates across the nation. Each health provider, including the pharmacist, who has contact with children should have access to immunization records; administration of vaccines to those already immunized wastes available resources.

Computer systems linking pharmacies across the nation would provide a viable solution to this problem. Complex computer systems are already in place in community, hospital, and long-term care settings; these systems span the information gap between in-patient and community care.

Software is available for tracking vaccinations, and many municipal systems are already using the technology. Pharmacy computer systems could also be used for tracking vaccinations, and further sharing of this information among health care providers could help identify a patient's need for vaccination.

Each health provider, including the pharmacist, who has contact with children should have access to immunization records; administration of vaccines to those already immunized wastes available resources.

Many children visit the emergency room for health care, and this is one opportunity to check immunization records. However, hospital emergency rooms rarely have that information available. If the hospital pharmacy computer was linked to the community pharmacy system, the patient profile could be reviewed, and the appropriate vaccinations could be administered.

Access to facilities where vaccinations can be obtained is one frequently cited barrier to immunization of young or pre-school children. While one-day promotions and clinics have high success rates, they cannot address subsequent immunization needs. Pharmacies would be an excellent place to provide vaccine administration for this simple reason: most are open longer than other health care sites, with 24-hour service available in some areas. These hours of operation offer an advantage over other non-traditional sites, such as schools, shopping malls, etc., many of which must hire additional professional staff to help administer vaccinations. The Visiting Nurses Association and a few large chain pharmacies have had great success using pharmacies as immunization sites for influenza vaccines. Similar relationships could allow for regular access to vaccines for children within the neighborhood pharmacies.

Educational programs focusing on the need for immunization, combined with access to convenient sites, will help increase the age-appropriate immunization rate. Pharmacists need little modification to play a vital role in these activities In some states, pharmacists can administer medications, and some could choose to administer vaccines. In other areas, pharmacists can hire another health professional to administer the vaccinations or cooperate with volunteer agencies or local government officials to use the convenient and professional pharmacy as an immunization site.

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Recommended Childhood Vaccine Schedule

Vaccine	At birth	1-2 mo	2 mo[1]	4 mo	6 mo	6-18 mo	12-15 mo	15 mo	4-6 yr
Diphtheria-tetanus-pertussis			✓	✓	✓			✓[2]	✓
Polio, live oral			✓	✓	✓[3]				✓
Measles-mumps-rubella[4]							✓		✓
Haemophilus influenzae type b conjugate									
HbOC/PRP-T			✓	✓	✓		✓		
PRP-OMP			✓	✓			✓		
Hepatitis B[5]									
Option 1	✓	✓				✓			
Option 2		✓		✓		✓			

This table is summarized from the immunization recommendation of the Advisory Committee on Immunization Practices and is intended to provide general scheduling information only. For a complete schedule and discussion, see the reference listed below.

[1] May be administered as early as six weeks of age.

[2]This dose may be administered as early as 12 months of age, provided that the interval since the previous dose is at least 6 months.

[3]The American Academy of Pediatrics (AAP) recommends this dose at 6-18 months of age.

[4]AAP recommends that two doses of the measles-mumps-rubella vaccine should be administered by 12 years of age, with the second dose being given preferably at entry to middle or junior high school.

[5]Infants of HBsAg-positive mothers should be immunized as soon after birth as possible.

Adapted from Centers for Disease Control and Prevention. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR.* 1994;43(RR-1):9.

NCSHP HOLDS ANNUAL WINTER MEETING

The North Carolina Society of Hospital Pharmacists (NCSHP) held their Annual Winter Meeting February 10-11 in Greensboro.

Highlighting the meeting were presentations on alternative medication distribution systems, a review of JCAHO standards and trends, pediatric pharmacotherapy, and the development of a pharmcotherapy work-up plan.

A program for pharmacy technicians was held in conjunction with the meeting, with over 65 technicians registered.

The following NCPhA members were honored for their contributions to the NCSHP: Ronald H. Small, Winston-Salem, completed his year as president of the NCSHP; Frances Gualtieri, Chapel Hill, was named NCSHP's 1993 Pharmacist of the Year; and T. Donald Marsh, Asheville, was installed as president-elect of the Society. NCPhA members Leslie Mackowiak, Chapel Hill, was installed as treasurer and Stephen R. Novak, Gastonia, was installed on the Board of Directors. Dan G. Garrett was installed as president of the Society.

Bill Sawyer, Chapel Hill, was named the recipient of a Presidential Service Award for his term as Treasurer for the Society. Winners of the Continuing Excellence Award included these members: Lydia M. Daugherty, Durham; Timothy J. Ives, Efland; Julienne K. Kirk, Winston-Salem; T. Donald Marsh, Asheville; Stephen R. Novak, Gastonia; Daniel W. Teat, Buies Creek; Peggy C. Yarborough, Sims; and Jane A. Younts, Stoneville.

STUDY SHOWS PHYSICIANS UNFAMILIAR WITH COST OF MEDICATIONS

In a survey conducted by the University of Missouri, 100 family practitioners and internists came nowhere near guessing the price tags of the nation's 25 most frequently prescribed drugs.

In some instances, they underestimated the price of a medication by 70 percent or more.

The University of Missouri survey and another show that not only are doctors generally unaware of how much the medications they prescribe cost their patients, but pharmacists are intervening aggressively in the doctor-patient relationship to lower costs.

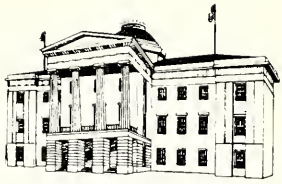
The survey also proposed a system by which pharmacists would provide doctors with pricing information, and recommend cheaper generics or alternative medications.

The survey, released at the annual meeting of the American Association of Pharmaceutical Scientists this fall, noted that when doctors are unaware of costs, patients suffer.

Pharmacists were urged to take a greater role in assessing the cost-effectiveness of drug therapy.

Adapted from The Herald-Sun, Durham, NC.

STATE HEALTH CARE REFORM



The North Carolina Health Care Commission, charged with developing a plan to provide universal access to health care for all North Carolinians, has been named.

The Governor
James B. Hunt Jr., Chairman

The Lieutenant Governor
Dennis A. Wicker

The Speaker of the House
Daniel T. Blue Jr.

The President Pro Tempore of the Senate
Marc Basnight

The House of Representatives
W.W. "Dub" Dixon
Karen E. Gottovi
Joe Mavretic
Richard H. Moore
Thomas E. Wright

The Senate
George B. Daniel
I.T. "Ted" Kaplan
Beverly M. Perdue
A.P. "Sandy" Sands

Ex-Officio Members
The Secretary of the Department of Environment, Health and Natural Resources
Jonathan Howes
The Secretary of the Department of Human Resources
Robin Britt

Staff for the Commission
Executive Director
James G. Jones, MD
Deputy Executive Director
Pam Silberman

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To access the tablet/capsule identification serivce and drug information services of **Call Our Pharmacist**, dial **1-900-90-DRUGS** (1-900-903-7847). A fee of $1.99 per minute will be assessed for each phone call.

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WHAT CONCERNS YOU THE MOST?

Lowell J. Anderson
National Drug Trade Conference
Dorado Beach Hotel, Puerto Rico
6 January 1993

Lowell J. Anderson

You asked the question: "When you go to work each day, what concerns you the most?"

This morning my drive to work takes me past the Ramsey County Hospital. I think about how this hospital actively diverts pharmaceuticals, purchased on hospital contract, to its retail and long-term care-for-profit pharmacies. This is also the hospital that just hired away one of the best young pharmacists I have ever had: paid him 25% more than I did, gave him 28 vacation days and 10 paid holidays. He is two years out of school. I suppose that this very nice package was made possible by the additional profits on the sale of diverted drugs. Neither the pharmaceutical manufacturers nor the Attorney General seem to care! I suppose it doesn't make much difference anyway — under Clinton's **Health Security Act** hospitals will be legally free to use their purchasing power to compete openly, and without concern over the diversion thing. I understand that the VHA hospital buying group has already issued a contract for hospital-based out-patient pharmacies. This hospital just merged with Health Partners—the result of a merger of Group Health and MedCenters Health Plan. Do I as a pharmacist have a future with this integrated system?

Now I am driving past the St. John's Hospital. This hospital is only about half a mile south of our White Bear Lake Pharmacy and it is part of a five-hospital group. I think of its recent initiatives to position itself in the new health system. They have set up a PPO that has successfully bid on a hospital and medical contract with 3M. To further enhance its position, the hospital system budgeted $6 million this year to purchase physician practices: it was able to buy 46 of them. This same hospital system also owns three retail pharmacies, a home health agency, a nursing home, a retirement community, a medical supply company, and a diabetic center. And, I understand that one of the major national drug manufacturers has been talking with it about further business alliance. Do I as a pharmacist have a future with **this** integrated system?

Now I pass the site of the new WalMart that will open this summer, about a half mile from the pharmacy. We all know their reputation. The question on my mind is "Will my pharmacy's reputation for service be sufficient to withstand their predatory pricing policies?"

Pulling into the parking lot in front of the pharmacy and getting out of the car, I look across the street to a pharmacy owned by a good friend and colleague. He is primarily in the long-term care pharmacy business. He buys his drugs a lot cheaper than I do — even those that are used for his ambulatory patients. Never could figure out the reason the manufacturers do that, since most of his patients are Medicaid and he bases bills on AWP — not acquisition. So why the discounts — they aren't helping either the state or old people! I am pleased that Howard can make extra profit — sure would be nice to have some of it myself though. I read that those who speak for the pharmaceutical manufacturers say that these various pric-

ing differentials are good for business, and good for the country. They must be right — I just don't understand it.

This is the time of the year when 60% of our patients who are covered by pharmacy benefit from managed care are up for re-enrollment. (Seventy percent of our prescriptions are managed care.) Many of these people change plans each year. Because many of the carriers are not capable of managing the change-over, it will be several weeks before many of the customers get new membership cards. They want their prescriptions anyway. We usually find out that the plan has changed **after** we have filled the prescription. Back up and redo it. Even when it's not 15 below zero, I really don't like January.

The principal employer in White Bear Lake is 3M. They have changed from BCBSM and Equicor, an indemnity program, to that new program offered by the hospital system I told you about. The drug benefit will be managed by PCS. We had heard that they were considering using DPS (a health care subsidiary). A couple of us called on the benefit manager at 3M and convinced him that it was bad business to use DPS. Their use of DPS would alienate pharmacists who are the major customers of at least 4 of their corporate divisions. We suggested that NARD might list them in their "Dishonor Role." They took our suggestion to use PCS.

Many of the plans are decreasing their reimbursement this year in the interest of "cost-containment." They are raising the physician fees, however, in the interest of quality care. This seems to make sense to everyone but pharmacists.

Many of the plans are decreasing their reimbursement this year in the interest of "cost-containment." They are raising the physician fees, however, in the interest of quality care. This seems to make sense to everyone but pharmacists. I wonder if we will ever get used to being at the bottom of the food chain? Do I as a pharmacist have a future with this system?

Walgreen's is moving in to our market with an aggressive mail-order program. They have always been the wild card with managed care organizations, almost always single handedly validating the move to lower MHC reimbursements. My insurance agent, my church and my gas station have all gone mail order. This year my bank is going mail order. Probably should consider a mail-order benefit for my employees as well.

I was heartened to read in a recent *Green Sheet* that an association spokesman said that his association "understands best the needs of the community practice setting and will address those needs as (he) deems appropriate." I hope that he is right because I am beginning to have serious doubts about whether or not I understand my needs. I hope he addresses them soon. We all do!

I look to associations that I belong to for solutions: my state association, MPhA; APhA; NARD. (I used to be a member of ACA 'til they kicked me out for selling greeting cards. I was also a member of ASHP back when I practiced in a hospital. That was when all hospital pharmacies were in the basement and unit-dose was a radical new concept.) One of my character flaws is that I believe that professional and trade associations can make a difference. I would point out that this is a strongly held belief. It must be, because increasingly most of the evidence is to the contrary.

We are in the midst of the biggest restructuring of our industry that has, most likely, ever occurred. It is happening at the federal level. It is happening in every state house. It is happening in every market. If there was ever a time for my associations to be out there influencing the development of the new market this is it.

But this is what I see. I see tribalism. Each of these associations is acting like a third world tribe. Each tribe is headed by its

chiefs — each trying to lead the tribe. The chiefs sit in their tents, and each time a new idea comes by they run out screaming, waving the flag, and claiming that they are the only true tribe. They tell us to not listen to the other chiefs who are screaming and waving their flags because they have no legitimate base of support.

I, like most of my colleagues, am tired of this chozzerai. You see: American pharmacy is in a survival mode. All practitioners are in a survival mode. There are about 3000 fewer of us community and chain pharmacies every year. The communities don't seem to care about that. Our state boards, health departments and associations don't seem to care either. It isn't important to us which association has what place in the organizational pecking order. We want to get on with our businesses. So cut out the bull-s—!

I think about all the colleagues with whom I have spoken this year. It is rare when one has not mentioned the schism that exists in pharmacy. "Why isn't pharmacy working together?" they ask. I used to talk with them about the significance of the JCPP (Joint Commission on Pharmacy Practice) and the NDTC (National Drug Trade Conference) and how these were the forums where the organizations could sit down and reason together. I have discovered, and am very disappointed, that these groups have chosen to not be as significant as they could be.

Now I tell them that I don't have an answer for "why isn't pharmacy working together." Even though I was an avid reader of *National Geographic* when I was a kid, I still don't understand tribal politics. I don't know why the chiefs insist on screaming and waving their flag while the members of their tribes are not only tired of it all, but are also starving to death.

Well, it's time to turn on the lights in the pharmacy. It's only five below zero this morning — maybe the nice weather will bring a good business day.

You have also asked the question: "What do you most hope for?"

Well, hope is passive. I think that we are past the time for passive remedies. However, in the spirit of the question it is my hope that those people who are in leadership positions in American pharmacy will begin to lead. We don't need people who think that good management is the same as effective leadership. You can't manage troops into battle, and you can't lead unless you are out in front. So, each one of us in this room — the elected and executive leadership of American pharmacy must get out in front and lead — or get out of the way.

Lowell Anderson is a community pharmacist and pharmacy owner in Minnesota. This speech was presented to the National Drug Trade Conference, a gathering of the chief elected officers and executive officers of each national pharmacy association. Anderson was the 1993-1994 President of the American Pharmaceutical Association.

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CORRECTION

The following letter was received by the Editor.

Dear Mr. Mebane:

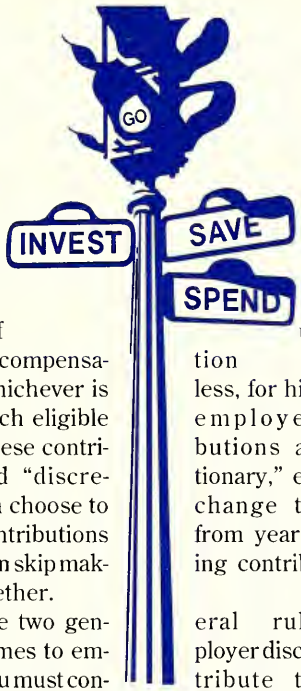
I am writing to bring to your attention a certain inaccuracy in your January 1994 issue of *The Carolina Journal of Pharmacy* in the article titled "DICKINSON'S PHARMACY" with the subtitle of "MEDCO AND APhA: CAN THIS DOG SHED ITS FLEAS?" The inaccuracy that I am referring to is the sentence in the second paragraph on page 20 that states "Breaks like $2.58 for Aerobid inhaler System 7 gm that costs independents around $33 (according to price discrimination lawsuits filed in August against Medco, Bergen Brunswig, McKesson and four manufacturers by Fred Mayer's Pharmacy Defense Fund)."

Forest Laboratories and its subsidiaries do not have a contract or a discount price on any of their pharmaceutical products to Medco Containment Services or any subsidiary of Medco or any company associated with Medco. Forest has never extended Medco a discount price on any of its products. As indicated in the article, there is a lawsuit regarding this issue and Forest has already demonstrated the factual inaccuracy of this supposed price for Aerobid offered to Medco.

Forest Pharmaceuticals and UAD Laboratories have been faithful suppliers to the independent retailers in the Carolinas and the rest of the nation for several years and are deeply disturbed by the implications of the article. We have received reports from our sales force of the negative impact that this has had on our pharmacy relations. I would appreciate your publishing a correction in your next issue of *The Carolina Journal of Pharmacy*. Also, I would be available to discuss this matter in more detail with you or any appropriate member of your staff.

Sincerely,
Michael F. Baker
Executive Vice President
Sales
Forest Pharmaceuticals, Inc.

A $IMPLIFIED APPROACH TO RETIREMENT BENEFIT$



Important as it is, providing retirement benefits hasn't always been easy for pharmacy owner/operators. Filing required documents with the Internal Revenue Service (IRS) and Department of Labor to establish the plan can be complicated, cumbersome and, as a result, time consuming. Ongoing plan administration and record keeping can prove overwhelming without a designated benefits or accounting department. And getting someone else to handle these functions for you can be expensive.

Add to that fiduciary responsibilities, intricate vesting schedules and often stringent contribution requirements, and it becomes clear why qualified retirement plans have historically been a big headache for the independent pharmacy owner/operator.

It's with this in mind (as well as how it impacts small business in general) that Congress created the Simplified Employee Pension (SEP) plan in 1978. As its name suggests, the hallmark of SEP is simplicity. And as an increasing number of smaller employers and self-employed individuals can attest, it is an easy and inexpensive solution to their retirement plan needs.

Easy To Establish and Maintain

A SEP is, quite simply, an Individual Retirement Account (IRA) you establish for yourself and, if applicable, each of your eligible employees.

Each employee maintains his or her own "SEP-IRA" account, so there is no filing with the IRS or Department of Labor. All individual participants assume fiduciary responsibilities for their own account. Bottom line: there is only minimal paperwork and bookkeeping to establish and maintain a SEP, and costs for consultants, lawyers, accountants and actuaries are sharply reduced—and may even be eliminated.

With a SEP, the employer can make tax-deductible contributions of up to 15% of compensation or $30,000, whichever is less, for himself and each eligible employee. Because these contributions are considered "discretionary," employers can choose to change the level of contributions from year to year, or even skip making contributions altogether.

There are two general rules when it comes to employer discretions: 1) You must contribute the same percentage of compensation to each eligible employee's SEP-IRAs as you do to your own account; and 2) You must make a contribution on behalf of all eligible employees. Employers can choose to establish certain eligibility requirements but, in general, employees who are at least 21 years old and have worked for the company three of the past five years must be covered.

Like an IRA

The SEP helps the small business owner and professional plan for tomorrow's retirement needs while enjoying valuable tax deductions today. Another important benefit for small businesses with employees is goodwill—employees like SEP. From the employees' perspective, the SEP-IRA account acts very much like a normal Individual Retirement Account. In fact, employees may make their own yearly Individual Retirement Account contributions directly into the SEP-IRA. All money contributed to the account—employer and employee—grows without being taxed for as long as it remains in the plan and is always fully vested.

Money comes out of the SEP plan like an IRA too—at age 59 and a half, you and your employees may begin making penalty-free withdrawals. And you can, if you want, wait until age 70 and a half to start taking minimum distributions from the plan.

One of the primary advantages of SEPs over IRAs is that more money can be contributed each year, since the IRA has a yearly contribution limit of $2,000 per person (plus $250 for non-working spouse) vs. 15% of compensation up to $30,000 for SEPs. Also, unlike IRAs, all SEP contributions remained fully tax-deductible after the Tax Reform Act of 1986 (TRA '86).

Investment Flexibility Is Key

Investment flexibility is also key: Any investment allowed in an Individual Retirement Account is suitable for a SEP, including bonds, stocks, mutual funds, unit trusts, etc.

Who Can Establish SEP?

A SEP could prove beneficial whether you're a small-to-medium-sized company, corporation or Subchapter S corporation, partnership, sole proprietor, professional association or individual with outside income such as consulting or director's fees. The SEP-IRA can be used as a first retirement plan, because it is so easy and inexpensive to establish and maintain, or as a second plan to allow for additional contributions at the employer's discretion. Because of its simplicity and flexibility, it's especially well-suited for new businesses or companies with a volatile profit history.

A Salary Reduction Option

Certain smaller employers—those with 25 or fewer eligible employees—can also choose to take advantage of a salary reduction option for SEPs, introduced by TRA '86. It's called "CODA SEP" (Cash or Deferred Arrangement SEP) and it's an ideal way for small businesses to shift part of the rising cost of retirement benefits to employees, while helping them meet their retirement saving needs.

Like a 401(k) plan, CODA SEP lets employees make their own pre-tax contributions to the plan through automatic payroll deductions. Contributions can be up to the lesser of 15% of salary or $8994 (for 1993, as indexed for inflation), and are free of federal and, in many cases, state and local income taxes. They also grow tax deferred. One difference from the 401(k) plan is that no employer "matching" contributions are allowed.

Two guidelines must be met by eligible small businesses to establish CODA SEP: 1) at least 50% of eligible employees must participate in the plan; and 2) an "anti-discrimination" test must be satisfied, assuring that the amount contributed by each employee at the high end of the pay scale as a percentage of their pay can be no more than 125% of the average contribution of all employees.

If you're looking to spend more time running your pharmacy than administering your retirement plan, the SEP is worth considering as a simple, low-cost alternative to a profit sharing or "Keogh" plan. No IRS approval is needed, no 5500 forms need to be filed with the IRS and there's no ERISA reporting. The plan can also be set up, and contributions made, by tax filing deadline plus extensions, not necessarily by year-end.

At a time when operating as an independent pharmacy owner/operator is becoming increasingly complex, taking advantage of vehicles designed to simplify your operation just makes good sense. Establishing a Simplified Employee Pension plan may be the right idea at the right time for you.

Mr. Kramer has been an Investment Executive since 1979. He has been writing articles for and appearing as a program speaker at annual meetings for numerous Pharmacy Associations since 1989. If you would like further information he can be reached at 800-446-0311.

AROUND THE STATE

Cary—**Ralph Ashworth** was elected chairman of the Cary Chamber of Commerce, a position he first held thirty-one years ago. Ashworth has headed several committees, including the Downtown Development Committee, and he started the Cary Downtown Farmers Market.

Greensboro—The prescription delivery service of Brown-Gardiner Drug Co. was highlighted in the *Greensboro News & Record.* The "Neighbors in Need, Neighbors in Deed" column focused on the services of the delivery personnel, and pharmacist and store owner **Bob Shearin** and pharmacist **David Baugh**.

Hillsborough—**Evelyn P. Lloyd** was selected for inclusion in the 1993-94 edition of Gilford's *Who's Who: The Elite Registry of Extraordinary Professionals.* Selection was based on careeer accomplishments and achievements and awards for community services, including her contributions to the NCPhA and as the first woman pharmacist elected to the NC Board of Pharmacy. Lloyd is the owner and manager of Lloyd's Pharmacy.

Kinston—**Charles Watson** was appointed by the county commissioners to the Industrial Development Commisssion board.

Lenoir—**Cathy Battle** was recognized for her outstanding accomplishments to Caldwell County. Battle, a pharmacist with Wal-Mart in Charlotte, was honored at the Harambee Recognition Banquet.

Morrisville—**Lisa T. Grimes** was named Vice President, Business Development of Pharmaceutical Product Development, Inc. (PPD), a full service contract research organization. Grimes assumed responsibilites for sales and marketing. Grimes had previously been with Glaxo, Inc. as Director of Professional Affairs.

Smithfield—**Marshall Sasser** of Medical Center Pharmacy was awarded a first place award for "Best Retail Ad" from the Smithfield Herald and the North Carolina Press Association, as part of their "Best Ad Contest."

Asheville—**Paul Chu** has been named Director of Pharmacy at St. Joseph's Hospital.

VERY INVOLVED VIP PHARMACIST

Look for details in an upcoming issue of the Journal.

IMPROVING PATIENT COUNSELING SKILLS

The Campbell University School of Pharmacy hosted a continuing education program on January 16. "Improving Patient Counseling Skills for Community Pharmacists" was presented to pharmacists from across the state.

"This program was designed to assist community pharmacists in improving their communication skills when counseling their patients," said Dr. Ronald W. Maddox, dean of the Campbell School of Pharmacy.

"We have been looking forward to providing continuing education in patient counseling and are very appreciative of Glaxo, Inc. for their assistance in this program," Maddox noted. The program was supported by a grant from Glaxo, Inc.

The continuing education program was unique in that it combined lectures regarding communication skills with laboratory sessions in the communications facilities of the School of Pharmacy. The pharmacist participants were videotaped in patient care situations which were reviewed by the program faculty. Assisting Dr. Maddox in leading the seminar were Dr. Daniel Teat, director of Continuing Education, and Mr. Joe R. Whitehead, special assistant to the dean.

For information about other continuing education programs addressing communication skills and patient counseling, please contact the NCPhA (1-800-852-7343), Campbell School of Pharmacy (Dr. Dan Teat 1-800-334-4111), or the UNC School of Pharmacy (Betty Dennis 919-962-0030).

(Left to right) **Michael Williams, pharmacist at Mast Drug in Smithfield; John Stevenson, pharmacist at Eckerd Drug in Henderson; and Dr. Dan Teat, director of Continuing Education at the Campbell School of Pharmacy.**

CORRESPONDENCE COURSE

PATIENT COUNSELING: RECENT CHANGES IN FDA-REQUIRED WARNINGS FOR OTC ANTACIDS, WATER-SOLUBLE GUMS, ANTIEMETICS, AND SLEEP AIDS

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, R.Ph., Pharm.D.
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to report on FDA's recent changes in warnings for OTC antacids, water-soluble gums, antiemetics, and sleep aids, and present counseling information to convey to patients.

Objectives

At the conclusion of this lesson, participants should be able to:

1. identify specific drugs that interact with OTC drug product ingredients;
2. identify warnings required in the labeling of OTC drug products; and,
3. demonstrate knowledge of information to use in counseling patients on antacids, water-soluble gum products, antiemetics, or sleep aids.

On August 26, 1993, FDA amended its Final Monographs for OTC Antacid, Water-Soluble Gum, Antiemetic, and Sleep Aid Drug Products. In this lesson, the significance of these warnings as they pertain to counseling patients will be discussed.

Antacids

The revised warning for OTC antacids (Table 1) comes nearly 20 years after the original Final Monograph for Antacid Drug Products was promulgated by FDA. Interestingly, antacids were the first group of OTCs evaluated after FDA was given the mandate to assure that all drugs (Rx and OTC) were safe and effective.

The initial Drug Interaction Precaution (DIP) for antacids published in 1974 referred only to aluminum-containing antacids interacting with tetracycline. This was amended in 1979 to include calcium and magnesium salts. In 1982, FDA was petitioned with a request to add digoxin to the DIP.

Comments to FDA on Antacid Labeling

After reviewing the petition and the literature, FDA proposed, in 1986, that the wording be changed to: "Antacids may interact with certain prescription drugs. If you are presently taking a prescription drug, do not

take this product without checking with your physician." In response to public comments, FDA has reviewed the comments and the literature to arrive at the final wording of the antacid DIP.

Among the pertinent comments, many requested that the word *pharmacist* be included as a health professional with whom consumers could check with about possible drug interactions. Major points made in these comments included the pharmacist's professional knowledge, ready availability, willingness to provide advice without charging expensive professional fees, access to the patient's medical profile and likelihood that consumers purchase antacids from pharmacies. While FDA agreed with all of these comments, the agency believed, however, that "other health professionals, such as nurses and physician assistants can also help consumers determine whether the drug they are taking interacts with antacids." FDA decided that *health professional* is the preferred term because it does not restrict consumers from other available sources of information.

Significance of Antacid Interactions

Several comments contended that the proposed DIP is not supported by the medical/scientific literature. When one looks closely at the citations used by FDA to arrive at its conclusion, one finds many review articles that cross-reference each other, many anecdotal notes and letters to the editor, and tertiary articles (e.g., the one you are reading now). It is difficult to find a well documented, blinded study of patients with diseases that prove there was harm done or that a therapeutic failure resulted from an interaction between antacids and other drugs.

FDA disagreed with this concept and concluded that the entire class of antacids can interact with a wide range of drugs, thereby adversely affecting their efficacy. An argument to support this viewpoint is that there are many potential mechanisms for antacids to affect the bioavailability of other drugs. Examples follow:

1. Antacids alter gastric pH. This could also change the ionization of other drugs and, thereby, modify absorption rates. Unionized chemicals are more likely to be absorbed through gastrointestinal cell membranes. By increasing the ionization of acidic drugs, antacids could reduce their absorption. Conversely, antacids could enhance absorption of basic drugs by decreasing their ionization. By changing the pH of the gastric fluids, antacids can increase or decrease absorption of other drugs depending on whether they are preferentially absorbed

Table 1
Warning Required on the Labeling of all OTC Antacids*

Drug Interaction Precaution: Antacids may interact with certain prescription drugs. If you are presently taking a prescription drug, do not take this product without checking with your physician (or doctor) or other health professional.

***Effective 8/26/94**

from the stomach or intestine.

2. Antacids, most specifically the di- and tri-valent cations, can form poorly soluble complexes or chelates with other drugs. This could reduce the absorption of the chelated/complexed drugs.

3. Antacids, especially aluminum salts, can absorb other drugs to themselves. This could reduce the absorption of the absorbed drugs.

4. Antacids, specifically sodium bicarbonate, can affect urinary pH causing it to be more alkaline. This could increase or decrease the rate of elimination of some drugs depending on whether they are weak acids or weak bases. Changes in ionization similar to those explained above (#1) can determine whether the drug is more or less likely to be reabsorbed in the kidneys.

While the significance of the above potential interactions is open to debate, FDA now requires a warning to consumers that they not take antacids without first checking with their doctor if they are taking any prescription drug.

Interactions With Considerable Evidence of Significance

1. Antacids may antagonize tetracycline. Di- and tri-valentions such as aluminum, bismuth, calcium and magnesium may inhibit the absorption of tetracycline derivatives through chelation. There is some evidence that decreased dissolution of the dosage form is also involved. Concurrent therapy is not contraindicated, but tetracycline and its derivatives should be taken at least two to three hours either side of the dose of an antacid. A once-daily tetracycline derivative (e.g., doxycycline, minocycline taken on arising, at least 1 hour before the antacid might be an alternative causing less likelihood of a problem in patients requiring a tetracycline product concurrently with antacid therapy.

2. Antacids may antagonize ketoconazole. Ketoconazole (Nizoral) tablets require gastric acidity for proper dissolution. By raising gastric pH, antacids can reduce the release of ketoconazole from its tablet form and reduce its absorption. Concomitant therapy with antacids is not contraindicated, but if needed, the antacid-containing product should be taken at least 2 hours after the dose of ketoconazole. In this instance, the best time to take a once-daily dose of ketoconazole is in the morning upon arising.

3. Antacids with sodium polystyrene sulfonate may cause alkalosis. The therapeutic action of sodium polystyrene sulfonate (SPS/Kayexalate) is to bind with potassium ions in the GI tract and prevent their absorption, thus alleviating hyperkalemia. However, SPS will also bind with calcium and magnesium ions contained in antacids to prevent total neutralization of bicarbonate ions present. This, in turn, can lead to systemic alkalosis which may be severe. If concomitant therapy with antacids and sodium polystyrene sulfonate is needed, this interaction is unlikely to occur when the SPS is administered rectally.

4. Some antacids may antagonize quinolone antibiotics. Some antacids may reduce serum and urine concentrations of quinolone antibiotics (Cipro, Floxin, Maxaquin, Noroxin, Penetrex), possibly by 90 percent. The proposed mechanism for this interaction is reduced absorption due to chelation with aluminum and magnesium ions. Manufacturers warn that antacids should not be taken within 2 hours of a quinolone antibiotic. Information is lacking on whether calcium salts are involved in this interaction.

5. Antacids reduce the absorption of cefpodixime. Antacids raise the pH of gastric contents and decrease the dissolution rate of cefpodixime (Vantin) tablets. Patients taking Vantin should be told to take their dose between meals on an empty stomach. Antacids should not be taken sooner than 2 hours either side of the dose of Vantin tablets.

6. Antacids, specifically aluminum hydroxide, can reduce absorption of isoniazid. Aluminum salts delay gastric emptying time and can reduce isoniazid absorption. This interaction can be avoided by

using an antacid that does not contain aluminum salts, and by taking them at least 2 hours before or after the dose of isoniazid.

7. Sodium bicarbonate may antagonize lithium. Sodium and lithium compete with each other for excretion, with sodium being preferentially reabsorbed from the kidneys. Patients taking lithium should not change their sodium intake significantly, and they should definitely NOT self-medicate with an antacid containing sodium bicarbonate.

Interactions Involving Antacids with Lesser Documentation

A few other drugs reportedly interact with antacids, but proof of significance is lacking. They include allopurinol, anticholinergics, digitalis, folic acid, histamine-2 blockers, misoprostol, penicillamine, phenothiazines, phenytoin and sucralfate.

Calcium-containing antacids may interact with a number of drugs. Calcium can antagonize calcitonin and etidronate. Excessive calcium intake can lead to hypercalcemia when taken with potassium-sparing diuretics and vitamin D. Patients taking any of them should avoid calcium-containing antacids.

Sodium bicarbonate, by increasing urinary pH, may affect the reabsorption of other drugs. Those drugs that appear in review articles as having their excretion decreased are amphetamines, ephedrine, mecamylamine, mexiletine, quinidine and tocainide. Salicylate excretion may be increased.

Special Considerations When Counseling Patients on Potential Interactions Involving Antacids

There are at least three scenarios in which the individual patient and physician must be considered when deciding how to counsel a patient:

Scenario 1. The physician has specifically told the patient to take an antacid with each dose of a prescription drug. Flatly telling the patient not to do so may not be in his/her best interest. It could confuse the patient because his doctor specifically directed it.

In this instance, determining whether the physician's intent is to reduce gastric upset when the prescription drug is ingested, and whether all antacids reportedly interact, or is only one cation implicated. For example, only aluminum salts appear to interact with warfarin and only calcium salts interact with thiazide diuretics. In each instance, a product without aluminum or without calcium could be selected and the interaction avoided.

Scenario 2. The patient has peptic ulcer disease (PUD) and the physician has specifically told him/her to "take an antacid." Here, assure the patient that this is good therapy, but take the antacid 2 hours before or after the prescription medication to help avoid any problems.

Scenario 3. The patient is self-medicating for heartburn, acid indigestion, sour stomach or upset stomach associated with these symptoms. With this scenario, it might be best to determine whether the symptoms are short-term or periodic and not chronic. If the latter is the case, the patient should check with his/her physician since continuous heartburn, etc., could be symptomatic of PUD, GERD and other gastrointestinal disorders. It can also be a sign that the prescription drug is irritating the gastric lining. In either instance, the patient should be discussing this with the physician.

If the symptoms are temporary (FDA has ruled that after 2 weeks of continuous symptoms the patient needs medical intervention), the 2-hour wait before or after the dose of his prescription drug may alleviate the symptoms and avoid the interaction.

The key point is that no label warning can apply to every person, and each situation must be aimed at maximizing an individual's therapy whether it is supervised or self-treated.

Water-Soluble Gums

FDA's final rule for OTC drugs containing water-soluble gums, hydrophilic gums and hydrophilic muciloids as active ingredients addressed the need for specific warnings and directions for proper ingestion. Cur-

rently, ingredients that are widely used include methylcellulose, polycarbophil and psyllium, in bulk-forming laxatives.

These products, when added to water, swell and increase their bulk. This is how they act as laxatives. However, if they are ingested with inadequate liquid, they can result in a thick, viscous, semi-solid mass. If this occurs in persons with difficulty in swallowing, there is a risk that the mass will become adhesive and block the throat or esophagus.

OTC products containing water-soluble gums have been commercially available for decades. Until FDA began its drug product surveillance program, there were isolated reports of water-soluble gums causing obstruction problems. Since 1970, however, FDA has received nearly 200 reports of esophageal obstruction and eight cases of asphyxia associated with the use of these products. Death occurred in 18 of these cases.

In its recent announcement, FDA ruled that consumers should be warned of potential problems and how to properly prepare them for ingestion (i.e., with at least 8 ounces of fluid). All OTC drug products containing water-soluable gums, hydrophilic gums and hydrophilic mecloids as active ingredient when marketed in a dry or incompletely hydrated form (capsules, granules, powders, tablets or wafers) must bear the warning listed in Table 2.

Table 2

Warning Required on All OTCs Containing Water-Soluble Gums in a Powder Form as an Active Ingredient*

Warning: **Taking this product without adequate fluid may cause it to swell and block your throat or esophagus and may cause choking. Do NOT take this product if you have difficulty in swallowing. If you experience chest pain, vomiting, or difficulty in swallowing or breathing after taking this product, seek immediate medical attention.**

Directions: **Take (or mix) this product (dosage) with at least 8 ounces (a full glass) of water or other fluid. Taking this product without enough liquid may cause choking.** *See Warnings.*

***Effective 2/28/94**

Antiemetics and Sleep Aids

FDA also proposed amendments to the current monographs on OTC antiemetics and sleep aids. The premise for the amendments was to bring them in line with the labeling of other OTCs containing antihistamines.

While the warnings are not final (comments were invited with a 10-25-93 deadline), they are worth mentioning since the proposed wording is somewhat different from the current labeling. Presently, OTCs containing antihistamines must bear the warning "Do not take this product if you have asthma, emphysema, chronic pulmonary disease, shortness of breath, difficulty in breathing, or difficulty in urination due to enlargement of the prostate gland unless directed by a doctor."

The basis of the proposed change is to replace the phrases "shortness of breath" and "difficulty in breathing" with "If you have a breathing problem." The agency stated that this will allow consumers to recognize respiratory distress symptoms more

readily.

FDA also replaced the diseases "asthma" and "chronic pulmonary disease" with "chronic bronchitis." The agency did not give its reasoning for the change, but allergy specialists had petitioned that a warning specifically on asthma is not appropriate for antihistamines. Their opinion is that some individuals have difficulty with the anticholinergic effects of certain antihistamines (e.g., lessened respiratory secretions). This may aggravate their breathing problems and make it more difficult to expectorate. Antihistamines actually constitute proper therapy for other patients since histamine is a factor in allergic reactions. FDA must have agreed with this concept in changing the warning from asthma to chronic bronchitis, which also covers chronic pulmonary disease. The proposed new wording for the antihistamine warning appears in Table 3. It is not yet finalized and will be part of a future rule, after FDA reviews the comments generated by this proposal.

Patient Counseling for OTC Antacids

1. Antacids are used to relieve heartburn, acid indigestion, sour stomach, and upset stomach associated with these symptoms. Under supervision by a doctor, antacids are used to treat peptic ulcer disease.
2. When used to treat peptic ulcer disease, antacids should be taken 20 minutes to 1 hour after meals and at bedtime, or as directed by your doctor.
3. Do NOT take this medicine within 2 hours of any prescription drug.
4. With the liquid antacids, remember to shake the bottle well before using. Specially marked devices are available to assure you measure an accurate dose. If you want one, ask for it.
5. For chewable tablets: Chew the tablet well before swallowing.
6. You may follow each dose with a full glass of water.
7. Unless directed by your doctor, do NOT use more than the recommended dose or longer than 2 weeks, or if you have kidney disease.
8. If you are on a low-salt diet, check to make sure it is okay to use this medicine.
9. Call your doctor if you have problems with constipation or diarrhea.
10. Read all labels before using this medicine.
11. Keep all medicines out of the reach of children and do NOT keep or use outdated medicines.

Patient Counseling for Bulk-Forming Laxatives

1. This medicine is used for temporary relief of constipation.
2. To properly prepare this medicine:

Powders: Stir the proper dose briskly in at least 8 ounces (a full glass) of fluid before swallowing it.

Packets: Pour the contents in an 8-ounce glass and slowly add sufficient fluid while stirring.

Table 3
Proposed Amended Warning for OTC Antiemetics and Sleep Aids*

Do not take this product unless directed by a doctor, if you have a breathing problem such as emphysema or chronic bronchitis, or if you have glaucoma, or difficulty in urination due to enlargement of the prostate gland.

***Proposed 8/26/93.**

Chewable tablets/wafers: Chew well before swallowing. Take at least 8 ounces (a full glass) of fluid with each dose.

3. Drinking additional water with each dose is helpful.

4. Do NOT use this medicine longer than 1 week if abdominal pain, nausea, vomiting, change in bowel habits or rectal bleeding are present unless directed by your doctor.

5. This is a bulk-forming laxative. It usually works in 12 to 72 hours. If you do not get the relief you desire after taking this medicine for 5 days, contact your doctor.

6. Do NOT use this medicine more frequently or in greater quantity than recommended on the label.

7. Drinking lots of fluids, increasing the amount of fiber in your diet and exercising will help prevent constipation.

8. If you experience chest pain, vomiting, or difficulty in breathing after taking this medicine, seek immediate medical attention.

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SEARLE

9. Do NOT give to children under 6 years of age unless directed by your doctor.

10. Do NOT take this medicine unless directed by your doctor if you are pregnant or nursing.

11. For phyllium products: If you are allergic to psyllium, do NOT take this medicine.

12. Read all labels before using this medicine.

13. Keep all medicines out of the reach of children and do NOT keep or use outdated medicines.

Patient Counseling for OTC Antiemetics

1. This medicine is used to treat nausea, vomiting, and dizziness of motion sickness.

2. When used for motion sickness, take the first dose 30 minutes before exposure to motion.

3. For liquids: Specially marked devices are available to assure you measure an accurate dose. If you want one, ask for it.

4. For chewable tablets: Chew the tablet well before swallowing.

5. This medicine may cause drowsiness or blurred vision. Do NOT drive a car, operate dangerous machinery, or perform jobs that require alertness until you know how you are going to react.

6. Avoid alcoholic beverages while you are taking this medicine.

7. Consult your doctor before taking other nonprescription or prescription drugs containing antihistamines, antidepressants, tranquilizers, antianxiety drugs, narcotic pain relievers, sleeping pills, or antibiotics that may cause ear damage.

8. Do NOT take this medicine if you have a breathing problem such as emphysema or chronic bronchitis, or if you have glaucoma, or difficulty in urination due to enlargement of the prostate gland, unless directed by your doctor. (If the medicine is labeled for children under 12 only, drop the reference to prostate enlargement).

9. Do NOT give this medicine to children under 6 years of age unless directed by your doctor.

10. If you are pregnant or nursing, do NOT take this medicine unless directed by your doctor.

11. Read all labels before using this medicine.

12. Keep all medicines out of the reach of children and do NOT keep or use outdated medicines.

13. In case of accidental overdose, call your doctor or poison control center immediately.

Patient Counseling for OTC Sleep Aids

1. This medicine is used to help you get to sleep.
2. Take this medicine 30 minutes before bedtime as directed on the product label.
3. Alcoholic beverages cause increased drowsiness.
4. If sleeplessness continues for more than 2 weeks, call your doctor.
5. Do NOT take this medicine if you have a breathing problem such as emphysema or chronic bronchitis, or if you have glaucoma, or difficulty in urination due to enlargement of the prostate gland, unless directed by your doctor.
6. Do NOT take doses more often than recommended on the label.
7. Read all labels before using this medicine.
8. Do NOT give to children under 12 years of age unless directed by the child's doctor.
9. Keep all medicines out of the reach of children and do NOT keep or use outdated medicines.
10. In case of accidental overdose, call your doctor or poison control center immediately.

Adapted from the Pharmex PALs (patient advisory leaflets). For more information, call 1-800-233-0585.

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CORRESPONDENCE COURSE QUIZ

Patient Counseling: Recent Changes in FDA-Required Warnings for OTC Antacids, Water-Soluble Gums, Antiemetics, and Sleep Aids

1. The initial Drug Interaction Precaution for OTC antacids published by the FDA in 1974 referred to:
   a. aluminum salts only.
   b. calcium salts only.
   c. magnesium salts only.
   d. all antacids.

2. When antacids alter the ionization of drugs in the G.I. tract, they are most likely to affect the interacting drug's rate of:
   a. absorption.
   b. distribution.
   c. metabolism.
   d. excretion.

3. The antifungal agent that is antagonized by antacids because it requires gastric acidity for proper dissolution is:
   a. Diflucan.
   b. Fulvicin.
   c. Nizoral.
   d. Sporanox.

4. Since 1970, FDA has received nearly 200 reports on which of the following being caused by OTC products containing water-soluble gums?
   a. Anaphylactic reactions
   b. Esophageal obstruction
   c. Large bowel inflammation
   d. Nutritional malabsorption

5. The best time to take an antacid is:
   a. morning and evening.
   b. 20 to 60 minutes after meals and at bedtime.
   c. during the meal.
   d. 20 to 30 minutes before meals.

6. The current Drug Interaction Precaution for OTC antacids published by the FDA in 1993 refers to:
   a. aluminum salts only.
   b. calcium salts only.
   c. magnesium salts only.
   d. all antacids.

7. Which of the following is most likely to affect urinary pH?
   a. Aluminum hydroxide
   b. Calcium carbonate
   c. Magnesium trisilicate
   d. Sodium bicarbonate

8. Antacids are most likely to reduce the serum and urine concentrations of which of the following groups of anti-infective agents?
   a. Macrolides
   b. Penicillins
   c. Quinolones
   d. Sulfonamides

9. OTC antiemetics must bear a warning on their label advising consumers not to self-medicate with the product if they have which of the following diseases?
   a. Acute angina
   b. Chronic bronchitis
   c. Diabetes mellitus
   d. High blood pressure

10. Which of the following has a warning on its labeling advising against using the product longer than one week or if abdominal pain occurs?
   a. Antacids
   b. Antiemetics
   c. Laxatives

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Patient Counseling: Recent Changes in FDA-Required Warnings for OTC Antacids, Water-Soluble Gums, Antiemetics, and Sleep Aids

- Attach a mailing label from *The Carolina Journal of Pharmacy* or print your name and address and mail with payment of $7.00 to CE Test, NCPhA, P.O. Box 151, Chapel Hill, NC 27514–0151
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Please circle correct answer

1. a b c d	4. a b c d	7. a b c d	
2. a b c d	5. a b c d	8. a b c d	
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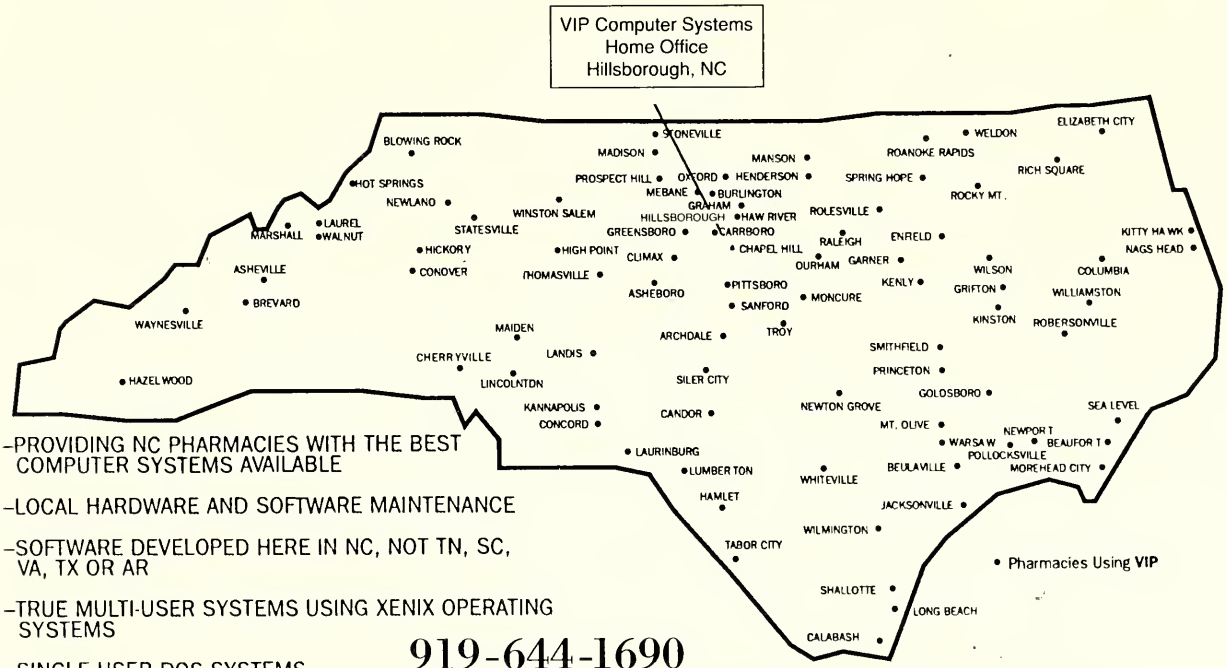

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Kristen Thomas, *center*, Campbell University, winner of the 1994 National Patient Counseling Competition, pictured with Tim Watson, *left*, APhA-Academy of Students of Pharmacy President and Jerome Halperin, USP Executive Director.

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CAMPBELL UNIVERSITY STUDENT WINS NATIONAL COUNSELING COMPETITION

Kristen Thomas, a second-year student at the Campbell University School of Pharmacy, is the 1994 winner of the National Patient Counseling Competition (NPCC). The competition was held March 18-20 at the American Pharmaceutical Association (APhA) annual meeting in Seattle, Washington.

The NPCC, an official function of the APhA Academy of Students of Pharmacy, is sponsored by the United States Pharmacopeia (USP). All 75 colleges and schools of pharmacy in the nation were represented in the 10th annual competition.

A native of Warrenton, Va., Thomas has received Campbell's Mary Williams and Marion L. Eakes Living Endowment Scholarship. For her first-place finish in the NPCC, she was awarded a cash prize and an engraved leather-bound, gilt-edged, collector's edition of the United States Pharmacopeia and the National Formulary. She also earned a trip to Washington, D.C., to attend the annual meeting of the National Council of Patient Information and Education (NCPIE) in May 1995.

Student participants in the NPCC are provided prescriptions and patient profiles and asked to counsel "patients," within a limited time period, on safe and effective drug use. The "patients" display diverse personality characteristics to challenge the participants' abilities to convey pertinent information in realistic situations.

Kristen Thomas, *(left)*, Campbell University, winner in the 1994 National Patient Counseling Competition, counsels her patient Michael Moném, Assistant General, State of Florida.

A gift by UNC Pharmacy Alumni Association

UNC COMMENCEMENT ADDRESS

by Joseph A. Edwards Jr., President Elect
North Carolina Pharmaceutical Association and
Owner of Edwards Pharmacy, Raleigh
May 15, 1994

Dean Campbell, faculty, family, friends, and most important of all, University of North Carolina School of Pharmacy graduates. I congratulate you as you enter the best and most respected health care profession—the profession of Pharmacy. I also acknowledge and thank all of the mothers and fathers, families and friends, both gathered here and at home, who have contributed so much support and encouragement. This is a great day for pharmacy in Chapel Hill and in North Carolina. I am greatly honored and excited about being a part of your graduation today.

Twenty-four years ago, I sat where you are sitting. I was filled with excitement, expectation, anxiety and enthusiasm. Twenty-four years later, I can tell you that I am just as excited about pharmacy. I love what I do! I love the road I have travelled because it has been the road less travelled. I have taken risks and have won, and I have taken risks and have lost. I have been commended and criticized. Yet, I have grown and have kept playing the game. Today, the vision of clinical pharmacy, physician-pharmacist partnerships, patient outcome focus, and expanded roles of the pharmacist empower me. I also enjoy being well compensated for doing what I love to do. My wish for you is that you will feel the same way twenty-four years from now.

Graduates, you are the most intelligent, most extensively educated, most professionally prepared, and most highly motivated class ever to graduate from the University of North Carolina School of Pharmacy. You have endured labs with endless triple refluxes, bookbags with a hundred pounds of reference materials, and all of those pharmacotherapy work-ups with pages of FARM notes. So, what does all of this education mean, and what is your role in the future of pharmacy and in a nation filled with medical crisis and indecision? I am here to say you mean everything! You are going to be the innovators of pharmacy practice, the movers and shakers, leaders not followers, mavericks in a sea of complacency, trail blazers who will reshape, redefine and create the future of pharmacy and health care in America. Your enthusiasm, drive and initiative is so greatly needed. So, I challenge you to get involved now and make a difference now.

You have the unique opportunity to create a future as an artist creates a picture from a blank canvas. Discard the old ways of thinking and the old ways of doing. Develop a vision of what you want pharmacy to look like and then design an action plan to make it happen. As Charles Kettering said, "The Wright brothers flew right through the smoke screen of impossibility." You have all the tools to make a difference in a profession of endless possibilities. Every parent in the audience can remember the thrill of holding their newborn child for the first time and realizing the tremendous potential that would evolve from this tiny life—a life always in the process of development, a life filled with change, anxiety, challenge, and growth. And so it is with Pharmacy. Change is inevitable. We can avoid it, resist it, talk about it, but change still comes. Our early pharmacists used mortars and pestles to prepare pharmaceutically elegant compounds from botanicals. As pharmaceutical manufacturers began to

prepare drug products in bulk, pharmacists changed their practices by becoming experts in drug dosing, potency, and side effects. As computer technology arrived, pharmacists embraced the communication age and developed expertise in patient profiles, drug monitoring, drug interactions, and sophisticated patient counseling. Now, we can see glimpses of a future in health care of dramatic changes. It's both exhilarating and a little frightening. On the horizon we see changing third party reimbursement rates, drug company mergers, and drug chain buyouts. Yet, we also see compensation for cognitive services, home IV infusion and compounding centers in community pharmacies, patient outcome interventions by pharmacists, and pharmacy office practices. The picture that is being created on our professional canvas keeps getting bigger and more complex, but it is far from complete. Pharmacy in America is like our small child analogy. Do we teach our child to walk by only giving him one chance to try, and if he fails, give up? No, we keep trying, keep encouraging, keep loving, and never give up. Why do we do this? We know in our hearts that our child will walk. Our child has what it takes to succeed, not just in walking, but in running, and even in becoming a world class athlete because our child is a part of us and therefore the best. So you see, the thrill of pharmacy is for you to become an integral part of its evolution and to make a difference in its development. When that occurs both you and Pharmacy grow and prosper.

Develop a vision of what you want pharmacy to look like and then design an action plan to make it happen.

Let us take a look at what you will need for this great pharmacy journey you are about to take. You first need to honor your integrity. In the beginning integrity is being true to your principles, obeying the rules, and doing the right things. Ultimately, it is being true to yourself and living by a value system you create. Many pharmacists in our state worked long and hard in the 1993 North Carolina Legislature to get the Pharmacy Freedom of Choice legislation passed which ensures that consumers have the right to select the pharmacy of their choice. Yet, the real Pharmacy Freedom of Choice is your right to practice in an environment that is intellectually challenging, innovative, and professionally rewarding. Do not accept mediocrity and never compromise your professional ethics. As W. Somerset Maughan writes, "It's a funny thing about life; if you refuse to accept anything but the best, you very often get it." Look around you at the dynamics of pharmacy practice and the men and women who are creating their practices to reflect their personal standards: Jeanne Ann Stasny in Waco, Texas, who developed PharmCare, a pharmaceutical care delivery program in three community pharmacies and who is about to go nationwide with her program; Lewis Williams of York Hospital in Pennsylvania who has demonstrated that tremendous economic impact that pharmacy interventions have in the hospital setting; Cal Knowlton of Amherst Pharmacy in New Jersey who has made great progress in receiving compensation for pharmaceutical care, and our own Peggy Yarbourough who is the nation's pharmacy expert in diabetes care and management. These pharmacists are innovators who possess high integrity and commitment to our profession.

Let us not forget that word commitment. Commitment is the backbone, strength and impetus of achievement. Remember the swimmer who attempted to swim the English Channel, made it half way across, decided he could not make it to the other side, so he swam back. Remember, Col. Sanders went to 1,011 restaurants before he sold his first recipe. The rest is history. As Dr. Robert Schuller says, "What would you attempt to do if you knew you could not fail?"

Avoid those people who speak negatively about pharmacy and about life. These folks are part of the problem not the solution. In a

Bible study with the San Diego Chargers, a wide receiver asked the pastor, "If we sin and the Holy Spirit is present in our bodies at the same time, how do we know which one is in control?" Before the pastor could answer, Mike Fuller, a free safety replied, "The one you feed the most." So, I say to you, feed yourself a steady diet of positive thoughts and positive actions. If you feed the negative you will believe the negative, if you feed the positive you will create opportunities and breakthroughs greater than you can imagine. Individuals who dwell on the negative rarely understand the overall picture, like the father-to-be who was pacing for hours in the waiting room while his wife was in labor. The nurse came in and said, "It's a girl!" The husband exclaimed, "It's a girl, thank goodness it's a girl. She wont't have to go through the pain and agony I went through tonight." I also challenge each of you to get involved in your profession. Your local, state, and naitonal associations need your participation and leadership. The real power of pharmacy is realized when we unite our profession into a single voice. Although there are as many organizations of pharmacy as there are different pharmacy practices, we should at all times support one another, allow each of us to epand our influence, communicate our needs to one another, develop common action plans, and champion the cause of pharmacy. Pharmacy associations are only as strong as the individual pharmacists they represent. We need to make sure all areas of pharmacy remain viable and powerful. United we stand tall to be heard, united we shall shape our professional future rather than having it shaped for us, united we shall make a difference. Archemedes said a few years ago, "Give me a lever long enough and a prop strong enough, I can move the world." To accomplish this we need to take the advice of Jonathan Kozol, who states, "Pick battles big enough to matter, small enough to win."

The last advice I give to you is to have fun in life. Life has been defined as that little mark on a tombstone that connects the birth date and the death date. Life is too short to waste a single minute. Take that sense of humor, blend it with a sense of adventure, and get into action.

Robert Fulghum, in *All I Really Need to Know I Learned in Kindergarten*, explains,

"I believe that imagination is stronger than knowledge.

That myth is more potent than history.

That dreams are more powerful than facts.

That hope always triumphs over experience.

That laughter is the only cure for grief.

And I believe that love is stronger than death."

I congratulate you, welcome you into our great profession of pharmacy, and wish you success and happiness in your careers. May each of your lives be filled with adventure, love, and fulfillment. Thank you.

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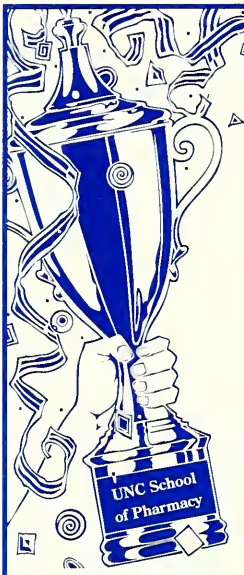
Herbert J. Pippin Jr., *Wendell*
Laura J. Rosamond, *Colorado Springs, CO*
David W. Smith, *Cary*
Richard H. Stanford, *Clemmons*
Laura B. Sutton, *Sanford*



UNC School of Pharmacy

1994 Award Recipients

Kappa Epsilon Award
Dawn S. Stacy

Pharmacy Student Body Award
Dawn S. Stacy

Student Body President Award
Angela H. Wilson

Pharmacy Faculty Award
Brian R. Kosobucki

Lemmon Award
Kimberly D. Kluttz

Buxton Williams Hunter Award
Jo Ellen Baldwin

Lilly Achievement Award
Angela H. Wilson

Merck Awards
Laura K. Smith *Phillip Bozovick*
Tamara D. Stanley

Jacobs Award in Medicinal Chemistry
Aranjeet Sidhu

Division of Pharmacy Practice Award
Laura K. Smith

SmithKline Beecham Pharmaceutical Care Award
Amanda Collins

Pfizer Community Pharmacy Internship Award
Sharon L. Causa

Roche Communications Award
Jeffrey L. Green

Rho Chi First Year Award
Stephanie R. Faucette

McKesson Award
Stephen F. Eckel

APhA Academy of Students of Pharmacy Recognition Certificates
Stephen F. Eckel
Dana J. Oakes

UNC Academy of Students of Pharmacy Recognition Certificates
Jamie Lee Durham *Rachel D. Leder*
Catherine A. Miller *Nikki M. Perry*

Phi Lambda Sigma Leadership Potential Award
Margaret D. McNeil

Division of Pharmaceutics Award
Stephanie R. Faucette

NcNeil Mortar & Pestle Award
Stephanie R. Faucette

Fonnie Jackson Andrews Award
Angela H. Wilson

Ciba Geigy Award for Achievement in Pharmacology
Kimberly D. Klaltz

American Society of Hospital Pharmacists Student Leadership Award
Jo Ellen Baldwin

Award for Excellence in Clinical Communication
Kristin M. Bieker

Sandoz Award
Shirley A. Heiman

Hollingsworth Scholar Award
Laura K. Smith

Howard and Mescal Ferguson Merit Scholar Award
Herbert J. Pippin Jr.

THE CHANGES AND CHALLENGES IN THE FUTURE OF HEALTH CARE

Commencement Address by Craig F. Fitzgerald, Vice President, Professional & State Government Affairs, Glaxo Inc. at Campbell University on May 8, 1994

Thank you for the introduction. It's a great pleasure and an honor to be at Campbell University today. This is a very special day for those who are being graduated and for your families and friends. It's the day when all the hard work and sacrifice by so many pays off. So let's all enjoy it before we remember how much it costs.

Lest we forget, this is also a special day for mothers.

Let's pay some honor where honor is always due, and have all the mothers in the audience stand up while we give them a big hand.

Our graduation ceremonies are something of a paradox with both a light and a serious side. They are lighthearted and joyous because finally our many years of study are behind us. And they are serious because, as today, within the next hour, the student days will be over and there awaits the real world and a whole new set of changes and challenges.

For two years now from the 1992 presidential campaign through the work of Hillary's commission, the President's special State of the Union speech last September, and eventually the beginning of hearings on the Clinton legislation, we have been inundated with information on health care reform.

At this date it's too early to see what the mix of health care reform plans from Clinton, Cooper, Gramm, Nickles, or some other plan may prevail in Congress. There is much disagreement on what final form the health care reform bill should take.

Is anyone here besides me perplexed about what they're trying to do in Washington?

It would take a genius to remember just the acronyms. There are PPOs and POSs, HMOs, HIPCs, IPSs and ISNs, PMMs and VPSs. Managed care and home care. Play or pay and per-person premium. Medicare, Medicaid and medigap.

The latest buzzword is "trigger," which is what would be put in the legislation to activate one thing in case the other thing doesn't work right. One senator said, "We'll need Roy Rogers to get this thing passed."

But, regardless of the health care reform outcome, no one seems to disagree on one outcome of this year's health care reform efforts at the federal and state levels and that is that in the future there will be many changes.

Charles Kettering, the famous inventor, said, "We should be concerned about the future because we will have to spend the rest of our lives there."

In talking about the future, let me start with this graduation class. I think those of you graduating here today have a future as bright as any that has crossed this stage to receive a degree from the Campbell University School of Pharmacy.

The fact that you are only minutes away from being graduated as Pharm.D.s and working in a field that once again this year was found by the Gallup Poll to be the most respected profession in American, makes it even brighter.

In some ways, those of us in the health care field are facing a whole new world. We are going to be facing many changes and challenges as we work together toward the dual goals of increasing the quality of health care and making it more accessible. And I want to briefly talk to you about a few of

these changes and challenges today.

There is the situation, for example, that for all the education and experience pharmacists acquire they very well may be the most underutilized part of our health care team.

Michael Woods, a syndicated science writer, thinks so. A few months ago, he wrote in a column these words:

"No other health care professional is trained so highly, used so little, and misunderstood so much."

Dr. John Gans, executive vice president of the American Pharmaceutical Association, says prescription drugs and pharmacists are the most cost-effective part of the American health care system.

If Mr. Woods and Dr. Gans are right, and I believe they are, then it makes us wonder why so many pharmacists believe they are spending five or six years getting an expensive education just to dispense drugs.

"We should be concerned about the future because we will have to spend the rest of our lives there."

Next on the list of changes and challenges pharmacists are facing today is the dramatic change in the market place.

APhA recently published a booklet called the "Special Report on Opportunities for the Community Pharmacist in Managed Care."

On page one of the report is a chart showing the historical and projected growth of managed care. It shows that in 1982, 87 percent of the population with health insurance was covered by a traditional fee-for-service indemnity plan under which they paid cash for pharmaceuticals. As of 1992, that figure was down to 25 percent with three-quarters of the covered population enrolled in some type of managed care. Some think that near 100 percent of the population may be managed care enrollees by 1997.

In March, IMS America, a subsidiary of the Dun and Bradstreet Corporation, announced results of a study showing that managed care retail prescriptions surpassed cash prescriptions for the first time in the fourth quarter of 1993.

This study is subject to some interpretation, but most pharmacists I know seem to think the managed care side of their business is considerably more than 50 percent and rapidly growing.

Another change and challenge for pharmacists in the future is the new complexity of medicines. Medicines can do great good, or, if the patient is not receiving true pharmaceutical care, they can do great harm.

In discussing drug therapy for the future with the head of Research and Development for Glaxo: "One of the very exciting development on the horizon is that the new scientific power of genetics is going to let us tailor the drug to the individual patient with a precision we never had before."

More recently at the APhA annual meeting in Seattle, Dean Jim Doluisio of the University of Texas School of Pharmacy, spoke of these complexities in his acceptance speech for the Remington Medal—the highest honor in pharmacy. This is what he said:

"I see signs that we (pharmacists) may be misreading our opportunities related to high tech, biotech type drugs. The education of future pharmacists must involve molecular biology and biotechnology. Pharmacy practice must look beyond the stable solid state oral dosage forms of tablets and capsules and realize that future high tech drugs will dominate therapy...If community pharmacies move away from these complexities they will likely be turning away from their future."

Finally, there is the change and challenge for pharmacists in providing pharmaceutical care. This, perhaps, will be the greatest challenge for pharmacists and for pharmacy in what some are calling life after health care reform.

The transition from traditional dispensing to providing pharmaceutical care is what everyone in pharmacy seems to want to do and to be compensated for. The question is, "How?"

One of the speakers at the APhA annual

meeting in Seattle a few weeks ago said, "Let's face it. All pharmacists are recovering dispensers."

This got a big laugh with the audience as the truth always does when it hits close to home.

Now that I've mentioned some of the issues and challenges that you as graduates will be facing, I want to return to the question: What will be the true meaning of health care in the future?

As I said earlier, I believe the pharmacy students graduating here at Campbell University and on other campuses this spring will have a bright future. I believe you may have more opportunities, more interesting work, and more possibilities to change the future of pharmacy than ever before.

"No other health care professional is trained so highly, used so little, and misunderstood so much."

And, I believe you will have the opportunity to play a significant role in solving some of the changes I have mentioned here today—in ways that will benefit humankind and this nation's outstanding health care delivery system.

If any of you were at the recent APhA meeting, on Saturday there was a pharmaceutical care showcase when four pharmacists with four different concepts presented their views on this subject.

All four were outstanding presentations, but I want to tell about just one of these pharmacists and her ideas for pharmaceutical care.

Her name is Jeanne Ann Stasny of Waco, Texas. Two years ago, she convinced the owner of three Super Save Drugs in Waco to put into practice a concept she had been developing for pharmaceutical care.

The concept is called PharmCare, and where it is being used it appears to be succeeding beyond Jeanne Ann's fondest dream. Her dream, and the PharmCare concept, is to go back to the close relationship of physician, pharmacist, and patient in providing pharmaceutical care.

PharmCare, and some of the other concepts that have been developed, are moving pharmacists into total disease management. Those pharmacists who have made this transition are practicing true pharmaceutical care. They are making patient interventions. They are counseling patients and being paid for it. And, they really do have the patient records some pharmacy TV commercials lead us to believe they have but, in fact, do not.

The PharmCare approach involves seminars for training pharmacists and technicians in the system Jeanne Ann has developed, a work flow design, and a very sophisticated computer software system for patient case histories, interventions, and data collection for patient outcomes.

You know the old saying, "Build a better mouse trap and the world will beat a path to your door."

Jeanne Ann has built her "mouse trap," and I can assure you that the "who's who" of pharmacy and the pharmaceutical industry in America has either already been to Waco or is on its way.

Jeanne Ann and Howard Biel of Super Save Drugs, who let her try her concept in his pharmacies, have been awarded the first DuPont Pharmaceuticals "Innovative Pharmacy Practice Award" ever given in the state of Texas. In addition, Jeanne Ann has just learned that she will be receiving the "Distinguished Alumnus Award" from the University of Houston School of Pharmacy.

I'm sure some of you have heard or read about Jeanne Ann Stasny. But for those who haven't, I want to tell you one more thing about her.

She is, of course, a graduate of the University of Houston School of Pharmacy. She was graduated not in 1972, 1982, but in 1992. Yes, two years ago in 1992.

My point in telling you about Jeanne Ann Stasny is not to single out PharmCare as superior to concepts developed by others.

The point is, most of these concepts, like PharmCare, are moving in the direction of addressing all the issues I mentioned ear-

lier. I challenge each of you to make pharmaceutical care what it can be and what it must be.

We in the pharmaceutical business share the changes and challenges that pharmacists face in the market place.

While we don't know how health care reform will end up, we already know that managed care is not going to pay for expensive medicines if we together—industry and pharmacy—can't show that they produce positive patient outcomes.

But here is the good news.

Pharmacists have the education and experience, and with systems such as Jeanne Ann Stasny's PharmCare, they will have the software capability to produce patient outcome data.

With these systems, pharmacists will have the opportunity to do interventions that save people's lives, to use their education and experience in counseling and be paid for it, and to fulfill their intended role as an important part of America's health care providers.

What will be needed, if pharmacists are to fulfill their true destinies of providing pharmaceutical care after health care reform, is leadership.

With all due respect to this or any other university, leadership is not always something students have the opportunity to learn on campus. It's like a sign I once saw in a clothing store while I was in college. It said, "There's nothing wrong with getting a good education if you're not afraid of learning something later."

Again, I want to go back to Dean Doluisio's Remington Medal acceptance speech in Seattle and some of his comments about leadership.

Dean Doluisio, who certainly is one of the major leaders in pharmacy education today, said he has never thought of himself as a leader, only as a teacher. And to be a teacher, he said, one must always be a learner. And then the dean said something I'm sure that also could be said by the faculty of this pharmacy school:

"... I have been surrounded daily by the most talented leadership we have in all of pharmacy—student leadership," he said. "I have thrived on interacting with students. They are so bright, creative, energetic, and they have no concept of the impossible. They are driven by the truth and by what they perceive as right."

"Some point to our future in pharmacy and say it is dependent on the implementation of pharmaceutical care. That is partly true."

"Some point to our future and say it is dependent on an improved educational system. That is partly true."

"Some point to our future and say it is dependent on the cost effectiveness of pharmaceutical services and on reimbursement policies. That is partly true."

But what our future is also dependent on is the quality of people who enter and sustain our profession.

We see a lot of pharmacy students in our work at Glaxo. We have pharmacy student interns. Our regional pharmacy affairs managers visit the pharmacy schools, conduct seminars for them, and otherwise interact with students all across the country. We also bring groups of pharmacy students to events on the Glaxo campus in Research Triangle Park.

I think, on the basis of what we at Glaxo see of pharmacy students, that the future of pharmacy is in good hands to lead this vital and important profession into the 21st century.

Go from here. Get involved in the affairs of your profession. Get involved in the affairs of your community. Get involved with the affairs of your country.

You have been prepared by one of the finest schools of pharmacy in the country. Now you will need dedication, ambition, hard work, and a vision to take you through the changes and challenges of tomorrow.

I want to close with a story about vision.

There once was an Indian chief who was growing old. One day he summoned his three sons to his teepee and told them he must choose one as his successor.

He told the three young braves to go out to the mountain that could be seen in the distance, and for each to bring him a gift. From

the gifts the father would decide which son would be the new chief.

After a few days the first son returned with a rare and beautiful flower. The chief praised him for the gift, because he said the flower could only be found in a difficult and dangerous place on the mountain.

A few more days passed and the second son returned with a rare stone. He, too, was given high praise because the chief said that stone could be found only very high on the mountain.

Many days passed before the third son returned bleeding and emaciated from days without food or water. The chief asked him for his gift.

The third son said, "Father, I have failed you because I have brought no gift.

In my quest I climbed to the very top of the mountain, and I started back with a hand full of pure white snow from the peak, but it long since has melted.

But, from the top of the mountain, I saw beyond our land to a new land far away—a land of green grass, tall trees and clear streams where some day our tribe can live in peace and plenty."

The old chief looked at the third son and said, "No, you have not failed, for you have brought back to me the greatest of all gifts—the gift of a vision. And you, my son, will be the new chief."

Do not lose the vision that brought you to this honor and recognition you are receiving here today. Do not lose the vision that will take you out among the sick and the injured to serve them with your profession. Do not lose the vision that each of you, like Dean Doluisio or Jeanne Ann Stasny or other pharmacy leaders, can make the kind of contribution that will keep the pharmacist the most respected of all professionals in America.

On behalf of all my associates at Glaxo, I thank you for the honor of being invited to speak on this important occasion. They join me in congratulating each of you and your families on your degrees, and wish you good luck and Godspeed as you go forth into the future.

PHARMACIST'S LETTER

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Van B. and Allene J. Hix Christian Citizenship Award
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Kathleen C. Johnson

Eli Lilly and Company Pharmacy Achievement Award
Virginia A. Clay

Facts and Comparisons Award
Stephen E. Kearney Jr.

Mylan Pharmaceuticals, Inc. Excellence in Pharmacy Award
Priscilla G. Johnston

Perrigo Award for Excellence in Nonprescription Medication Studies
Jamie A. Bardo

Pfizer Pharmaceuticals, Inc. Community Pharmacy Internship Award
T. Christopher Larr

Pharmaceutical Sciences Research Award
Melissa L. Ellis

Roche Laboratories Pharmacy Communications Award
William E. Cash Jr.

Sandoz Pharm.D. Award
Anna I. Bonelli

SmithKline Beecham Laboratories Award for Superior Clinical Achievement
Kathey B. Milner

Gerald M. Stahl Pharmacy Practice Faculty Award
Vanessa L. Hayes

North Carolina Pharmaceutical Association

1994 Application for Membership- New Graduate

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Name to be Used on your Mail _____ P.D. Yes [ ] No [ ]

Date of Birth _____ Married Yes [ ] No [ ] _____ (Spouse's Name)

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Employment Status	**Practice Setting**
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NCPhA 94

A SIMPLIFIED APPROACH TO RETIREMENT BENEFITS FOR INDEPENDENT PHARMACISTS

By Bruce Kramer, Investment Executive, PaineWebber, Troy, MI

Important as it is, providing retirement benefits hasn't always been easy for pharmacy owner/operators. Filing required documents with the Internal Revenue Service (IRS) and Department of Labor to establish the plan can be complicated, cumbersome and, as a result, time consuming. Ongoing plan administration and record keeping can prove overwhelming without a designated benefits or accounting department. And getting someone else to handle these functions for you can be expensive.

Add to that, fiduciary responsibilities, intricate vesting schedules and often stringent contribution requirements, and it becomes clear why qualified retirement plans have historically been a big headache for the independent pharmacy owner/operator.

It's with this in mind (as well as how it affectssmall business in general) that Congress created the Simplified Employee Pension (SEP) plan in 1978. As its name suggests, the hallmark of SEP is simplicity. And as an increasing number of smaller employers and self-employed individuals can attest, it is an easy and inexpensive solution to their retirement plan needs.

Easy To Establish and Maintain

A SEP is, quite simply, an Individual Retirement Account (IRA) you establish for yourself and, if applicable, each of your eligible employees.

Each employee maintains his or her own "SEP-IRA" account, so there is no filing with the IRS or Department of Labor. All individual participants assume fiduciary responsibilities for their own account. Bottom line: there is only minimal paperwork and bookkeeping to establish and maintain a SEP, and costs for consultants, lawyers, accountants and actuaries are sharply reduced—and may even be eliminated.

With a SEP, the employer can make tax-deductible contributions of up to 15% of compensation or $30,000, whichever is less, for himself and each eligible employee. Because these contributions are considered "discretionary," employers can choose to change the level of contributions from year to year, or even skip making contributions altogether.

There are two general rules when it comes to employer discretionary contributions, however: 1) You must contribute the same percentage of compensation to each eligible employee's SEP-IRAs as you do to your own account; and 2) You must make a contribution on behalf of all eligible employees. Employers can choose to establish certain eligibility requirements but, in general, employees who are at least 21 years old and have worked for the company three of the past five years must be covered.

Like an IRA

The SEP helps the small business owner and professional plan for tomorrow's retirement needs while enjoying valuable tax deductions today. Another important benefit for small businesses with employees is goodwill—employees like SEP. From the em-

ployees' perspective, the SEP-IRA account acts very much like a normal Individual Retirement Account. In fact, employees may make their own yearly Individual Retirement Account contributions directly into the SEP-IRA. All money contributed to the account—employer and employee—grows without being taxed for as long as it remains in the plan and is always fully vested.

Money comes out of the SEP plan like an IRA too—at age 59 1/2, you and your employees may begin making penalty-free withdrawals. And you can, if you want, wait until age 70 1/2 to start taking minimum distributions from the plan.

One of the primary advantages of SEPs over IRAs is that more money can be contributed each year, since the IRA has a yearly contribution limit of $2,000 per person (plus $250 for non-working spouse) vs. 15% of compensation up to $30,000 for SEPs. Also, unlike IRAs, all SEP contributions remained fully tax-deductible after the Tax Reform Act of 1986 (TRA '86).

Investment Flexibility Is Key

Investment flexibility is also key: Any investment allowed in an Individual Retirement Account is suitable for a SEP, including bonds, stocks, mutual funds, unit trusts, etc.

Who Can Establish SEP?

A SEP could prove beneficial whether you're a small-to-medium-sized company, corporation or Subchapter S corporation, partnership, sole proprietor, professional association or individual with outside income such as consulting or director's fees. The SEP-IRA can be used as a first retirement plan, because it is so easy an inexpensive to establish and maintain, or as a second plan to allow for additional contributions at the employer's discretion. Because of its simplicity and flexibility, it's especially well-suited for new businesses or companies with a volatile profit history.

A Salary Reduction Option

Certain smaller employers—those with 25 or fewer eligible employees—can also choose to take advantage of a salary reduction option for SEP's, introduced by TRA '86. It's called "CODA SEP" (Cash or Deferred Arrangement SEP) and it's an ideal way for small businesses to shift part of the rising cost of retirement benefits to employees, while helping them meet their retirement saving needs.

Like a 401(k) plan, CODA SEP lets employees make their own pre-tax contributions to the plan through automatic payroll deductions. Contributions can be up to the lesser of 15% of salary or $8,994 (for 1993, as indexed for inflation), and are free of federal and, in many cases, state and local income taxes. They also grow tax deferred. One difference from the 401(k) plan is that no employer "matching" contributions are allowed.

Two guidelines must be met by eligible small businesses to establish CODA SEP: 1) at least 50% of eligible employees must participate in the plan; and 2) an "anti-discrimination" test must be satisfied, assuring that the amount contributed by each employee at the high end of the pay scale as a percentage of their pay can be no more than 125% of the average contribution of all employees.

If you're looking to spend more time running your pharmacy than administering your retirement plan, the SEP is worth considering as a simple, low-cost alternative to a profit sharing or "Keogh" plan. No IRS approval is needed, no 5500 forms need to be filed with the IRS and there's no ERISA reporting. The plan can also be set up, and contributions made, by tax filing deadline plus extensions, not necessarily by year-end.

At a time when operating as an independent pharmacy owner/operator is becoming increasingly complex, taking advantage of vehicles designed to simplify your operation just makes good sense. Establishing a Simplified Employee Pension plan may be the right idea at the right time for you.

ANNUAL REPORT OF THE NCPHA CONSULTANT PHARMACY COMMITTEE

The Consultant Pharmacy Committee met on October 17, 1993 and February 13, 1994. Members participating were: Jan Brickley, Ross Brickley, George DeMaagd, Mike Fuller, Ron Gobble, John Harmon, Stan Haywood, Willie Jennings, Todd King, Margaret Sgritta, Richard Watts, Don Weathers, Olin Welsh, and Jane Thompson *(Chairperson)*.

NCPhA President Rob Bizzell formed the Consultant Pharmacy Committee to "unify consultant pharmacists in North Carolina, strengthen their voice and influence in the professional, regulatory, and public sectors, establish and provide for continuing education, and sustain mutual support."

There are **many** issues facing consultant pharmacists (and pharmacists in general) during this time of proposed/and simultaneously occurring health care reform. It was apparent, however, that **education** is a priority in the minds of committee members during these two meetings this past year. By educating ourselves, we stand a better chance of educating those in the professional, regulatory, and public sectors, in terms of our value in the health care system.

A North Carolina Geriatric Pharmacy Certificate Program was discussed in general at the October meeting. "Would pharmacists be interested in participating?" was the question. "What would be the value of such a program?" and "Why would pharmacists want to complete this formal course of study?" were other questions asked.

Committee members were asked to prepare for the second meeting by reading several articles relevant to developing a proposal for a geriatric certificate program:

1. "An Effective Grant Proposal Gains Support for Good Ideas," *The Consultant Pharmacist*, 1993; 8:1448.

2. "Continuing Education in Geriatric Pharmacy: An Assessment of a Canadian Program," *Journal of Geriatric Drug Therapy* 1992; 7(2):53-65.

3. "Geriatric Pharmacy Education in the United States of America," *Journal of Geriatric Drug Therapy* 1991; 5(4):21-37.

4. "Development and Implementation of a Consultant Pharmacist Certificate Program," *The Consultant Pharmacist,* 1993; 8:838.

5. "The Swiss Cheese Approach: Geriatric Pharmacy Education in America," *The Consultant Pharmacist,* 1993; 7:8-15.

At this meeting, members completed a program planning chart with four headings: Problem, Goal(s), Objectives, and Methods.

Problem: Older adults have special health care needs in terms of pharmaceutical care. Many pharmacists do not recognize/appreciate the clinical differences in caring for a geriatric patient compared with other patients. Many pharmacists lack the ability/motivation to provide a high standard of pharmaceutical care for this population group. In a national study, over 80% of 280 pharmacists did not believe they were adequately prepared for geriatric clinical practice by their formal education. *(Reference 3)*

Goal: Educate North Carolina pharmacists in the specialty of geriatrics in order to provide a higher level of patient care for the older adult population.

Objectives: Establish a geriatric pharmacy certificate program which should achieve:

1. Reduction in the number of medication problems in geriatric patients.
2. Increased interventions by pharmacists on behalf of geriatric patients.

3. Documentable positive drug therapy outcomes in geriatric pharmaceutical care.

Methods:

1. Survey North Carolina pharmacists to determine their level of interest in a geriatric certificate program.
2. Investigate existing certificate programs to assess their strengths and weaknesses.
3. Plan to avoid the perceived failures in existing programs and incorporate the successes into the development of a North Carolina certificate program.

Two separate surveys were utilized in March of this year. An article in the NCPhA *Carolina Digest* called for interested pharmacists to respond with their names, addresses, and practice sites in a phone call to the NCPhA office. Sixty pharmacists indicated an interest in a geriatric pharmacy certificate program as described in the article. Of the respondents indicating their practice sites, 75% were community/retail pharmacists, 25% were hospital-based pharmacists, and 5% were practicing in long term care.

A second survey was distributed to attendees of the Post Graduate Consultant Pharmacist Workshop in March of this year. Fifty-seven percent of approximately 100 consultant pharmacists completed the survey, indicating an interest in a certificate program.

In addition to the survey and with direct impact on this committee, the Post Graduate Workshop included a meeting of the North Carolina Chapter of the American Society of Consultant Pharmacists. A vote was taken and it was unanimously approved to form an academy of NCPhA with this group/association of consultant pharmacists.

United We Stand, Divided We Fall

Consultant pharmacists have worked extremely hard to get where they are today in the long term care arena. It is vital for pharmacy groups to join together in these uncertain times of changing health care systems in order to assure that progressive steps forward by any pharmacy group not be eradicated as a result of these changes.

Consultant pharmacists look forward to a long, enjoyable, and productive relationship with the North Carolina Pharmaceutical Association as an Academy.

Respectfully submitted,

Jane S. Thompson, Chairperson
NCPhA 1993-94 Consultant Pharmacy Committee
NCPhA 1994-95 Academy/NCASCP Geriatric Certificate Program Committee

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AROUND THE STATE

Statesville—**Rhonda Kontos** was recently presented with the K-Mart Pharmacist of the Year award.

Reidsville—**Kevin Layne** has been named pharmacist-in-charge at Belmont Pharmacy Inc. Kevin graduated from UNC School of Pharmacy in 1990.

Sims—**Frank Yarborough** was recently appointed as the new director of pharmacy education of Area L AHEC.

Belmont—**Emily Carol Traywick** and Joseph Edward Mamo III, were married May 14. The bride, a UNC School of Pharmacy graduate, is employed by Drug Emporium in Charlotte

Cary—**Terrence Burroughs** president of the National Pharmaceutical Association (NPhA) Triangle Chapter was elected Speaker of the House of Delegates for 1994 as well as to the National Board of Directors of of NPhA. Terrence is a 1982 graduate of the UNC School of Pharmacy.

Wilmington—**Bruce Canaday** has been designated as a 1994 fellow of the APhA Academy of Pharmacy Practice and Management.

Chapel Hill—**Herb Patterson, William Sawyer, and Dennis Williams**, have been elected Fellows of the American College of Clinical Pharmacy. They will be recognized, along with the 21 other elected ACCP members, during a special ceremony at the College's Annual Meeting on August 1, in St. Louis, Missouri.

Nashville—**Gary Glisson** is among the ten pharmacists chosen to serve as "at large delegates" to the "Pharmacy in the 21st Century III" conference. Gary will attend the strategic planning conference in October in Lansdowne, Virginia.

EPPS SELECTED FOR PHARMACY MANAGEMENT PROGRAM

Martha Fowler Epps, Pharmacist/Manager of The Medicine Shoppe in Hope Mills, has been selected to attend the American Pharmaceutical Association/SmithKline Beecham (APhA/SB) Community Pharmacy Management Program at the University of Wisconsin at Madison in June 1994. This program provides pharmacists the opportunity to gain information and insights that will help them provide superior service to their patients.

The APhA/SB Community Pharmacy Management Program (CPMP) is an intensive, seven-day management symposium presenting a curriculum from the University of Wisconsin at Madison College of Pharmacy and the College of Business. This year's educational sessions include: communication skills, marketing concepts, innovative practices in pharmacy, strategic planning, customer relations, promotion, quality assurance systems, management information support systems for quality assurance, analysis of financial statements, and motivation and leadership skills for pharmacy managers.

The 30 participants were chosen by the CPMP Advisory Committee from among numerous pharmacist applicants. The program is designed to bring leaders in community pharmacy together in a university environment for concentrated study, sharing, and growth.

The program is supported by a grant from SmithKline Beecham Pharmaceuticals.

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CORRESPONDENCE COURSE

ADVISING PATIENTS ON "SWITCH" DRUG PRODUCTS PART I: THE PROCESS, PROS, AND CONS

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, R.Ph., Pharm.D.
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to explain how prescription drugs are switched to OTC status, and the major factors involved in decisions to do so. For the purpose of this lesson, the term switch refers to the legal reclassification of a drug from prescription-only (Rx) to nonprescription (OTC) status.

Objectives

At the conclusion of this lesson, the participant should be able to:

1) identify societal and economic factors that have helped popularize the Rx to OTC switch process;

2) identify how manufacturers, physicians, pharmacists, and consumers can benefit from a drug being switched from Rx to OTC status; and,

3) demonstrate knowledge of information to use in explaining how drugs were switched from Rx to OTC status under FDA's system of expert advisory panels.

The switching of prescription drugs to OTC status has been a somewhat controversial, yet dynamic, component of modern therapeutics. Considering both OTC drug product ingredients and dosage strengths, more than 400 OTC products in use today were restricted to prescription only status in 1978.

Federal laws enacted throughout the first half of the 20th century to regulate drugs were designed to assure the safety and purity of drug products sold in the U.S. They did not differentiate prescription versus nonprescription drug status. Most emphasis was on the former. As a result, some manufacturers of OTC drug products were not always viewed as providers of ethical products.

Professional Attitudes Toward Drug Shifts

There is a difference of opinion among pharmacists about the pros and cons of the Rx to OTC switch. The professional point of view is that it provides greater opportunities for patient counseling.

The economic view is that every Rx drug that becomes OTC ends the exclusive dispensing franchise pharmacists have. This

Table 1

Trends Contributing to Americans' Views on Self-care

- Post-World War II changes in values when people started to lose faith in organized health care systems
- The focus on self care—the "me generation"—the heart of self-care
- Emphasis on health and fitness
- Belief in prevention and planning resulting from the revolution in values
- Government deregulation with a politi cal environment that favors self-care market development
- Technology and consumer acceptance of it
- Product development and improved packaging that fosters consumer acceptance of self-care
- More organizations with a health agenda
- Consumer demand for information
- Self-care as a response to serious disease like cancer and AIDS, along with a national call for prevention
- Aging population
- Escalation of health care costs ($675 billion in 1990, $817 billion in 1992, and $1.5 trillion estimated by 2000)

opens the sale of the OTC version to nonprescription outlets which have already taken over 60 percent of OTC sales away from pharmacies.

Factors Fueling the Switch of Rx Drugs to OTC Status

Several societal and economic factors have helped bring about the switch process. (Table 1). Among them is the national trend toward self-care. Consumer advocates argue strongly that self-medication is a basic human right and people should have greater choice in managing their own health. They feel that Americans are sophisticated, self-reliant and health conscious, and capable of making good decisions, balancing the benefits and risks of drugs.

Opponents are concerned with the process and the self-care movement. They cite deceptive advertising, misuse of medication, delays in medical treatment of serious disease or poisoning, and lack of professional supervision as reasons to maintain drugs on prescription status.

Others view the switch as a valuable alternative to escalating health-care costs. The premise is that safe and effective OTC products promote self-therapy which is easy to access without the expense of physician or pharmacist intervention. Proponents say this helps reduce health-care costs by decreasing the number of visits to physicians and dentists to treat chronic or recurrent illness, and eliminating the dispensing costs.

Additionally, proponents argue that there is a concomitant decrease in the number of expensive laboratory tests performed.

Benefits of Switching Prescription Drugs to OTC Status

OTC products represent a significant source of additional revenue to **pharmaceutical manufacturers**. Sales increases of 400 to 500 percent or more during the first year a drug is available for self-therapy have been reported. For example, the year before topical hydrocortisone 0.5 percent became available for OTC use, it accounted for $12 million in prescription sales. During its first year OTC, sales of $70 million were recorded for the nonprescription products, with 75 percent of transactions occuring in pharmacies. Interestingly, prescription sales of topical hydrocortisone products that same year increased 50 percent, to $18 million.

Now that 1 percent hydrocortisone prod-

ucts are available, sales are even higher.

Patent protection is expiring over the next few years for some of the pharmaceutical industry's top sellers. Many of the nonsteroidal anti-inflammatory agents and histamine-2 antagonists are coming off patent. They will then be vulnerable to competition from generics. Switching a drug to OTC status extends its sale to over one-half million outlets without the barrier of a prescriber and dispenser, with no third-party payor forcing generic or therapeutic substitution, and with the advantage of mass media advertising.

Switching prescription drugs to OTC status is much more likely to bring significant financial returns to manufacturers than developing a new drug. The development process is estimated to take an average of 17 years at a cost of more than $150 million. Also, hundreds of chemical entities are screened and tested to find one marketable drug.

With far less research and development costs, switching a proven prescription drug to the OTC market extends the active revenue producing years far beyond the patent expiration date. For example, a report from the OTC consulting firm of Kline & Company on the top 10 selling OTC drugs in 1992 showed the figures listed in Table 2.

Consumers benefit from the switch process because they have access to a wider variety of drug products. An analysis of consumer savings, financed by the Nonprescription Drug Manufacturers Association (NDMA–formerly the Proprietary Association), estimated that during the first three years of OTC availability of hydrocortisone products, the American public pocketed more than $1 billion in savings including the cost of physician's officevisits, and prescription-associated expenses.

Proponents feel that compliance may improve by increasing an individual's responsibility for his/her health care.

Physicians may also benefit by reducing the number of patients with trivial complaints, adding more time for those with serious medical problems.

Each new OTC drug product affords an expanded counseling role for **pharmacists.**

The cost of health care in the U.S. represents 11 percent of the gross national product (GNP) at the time of writing this lesson, and is expected to increase to 15 percent by the year 2000. The total expenditure for drugs in the U.S. in 1991 was $40 billion, with $28 billion for Rx drugs and $12 billion for OTC products. Sales of OTC products are expanding at an annual rate of 6 percent, versus 1.5 to 2 percent for Rx drugs.

A World Health Organization survey reported that at least 40 million Americans take an OTC drug on any given day. Studies have shown that 65 to 85 percent of all medical care in the U.S. is self-therapy, and OTC products are used by people at all levels of socioeconomic status. At the same time, it is estimated that total spending for self-medication products accounts for less than two cents of the U.S. health-care dollar. According to the NDMA, self-care is the largest, and least costly, component of the U.S. health-care system.

Legislation Relevant to the OTC Drug Product Marketplace

Before the 20th century, there were few restraints on the preparation, quality or availability of medication. Drug therapy consisted mainly of herbal or mineral formulations that gave palliative relief of symptoms, but did not treat disease. Laboratory and clinical research had not yet developed. There was no great need at that time for governmental regulation of drugs.

Food and Drugs Act. Federal regulation of drugs began with the *Food and Drugs Act* of 1906 in an effort to protect the public against unsafe drugs. The first comprehensive federal law to regulate drugs, the Food and Drugs Act, created the Bureau of Chemistry, predecessor to the current FDA. The original Act has been amended significantly. Important dates of revision are 1938, 1951, 1962, and 1984.

Pure Food, Drug, and Cosmetic Act. In 1938, Congress enacted the *Pure Food, Drug, and Cosmetic (FD&C) Act.* Before

1938, while the active ingredient needed proof of safety, the entire product did not. The first sulfonamide available in mass production was difficult to formulate. Suspension and syrups were extremely thick and difficult to shake into uniform distribution. What appeared to be a good idea, dissolving sulfanilamide in the solvent diethylene glycol to produce a pharmaceutically elegant clear solution, led to the deaths of over 100 people. Today, we know that diethylene glycol is a toxic solvent.

The 1938 law overcame many shortcomings of the 1906 legislation. It required for the first time that manufacturers establish the safety of drug products including active and inactive ingredients which are shipped in interstate commerce, and that manufacturers properly label them. The labels were to list adequate instruction for use. Drugs considered safe for self-administration (OTC status) were to be labeled with complete instructions so that consumers could safely use the products without medical supervision.

While the Pure Food, Drug, and Cosmetic Act clarified many issues omitted from the original law, there were still unsolved problems. For example, there was no clear delineation or legal distinction between drugs that required a prescription from those available without one. Manufacturers decided which drugs were to be limited to prescription, and which were suitable for self-therapy. The process was confusing since a drug could be limited to prescription by one manufacturer and classified OTC by another.

There was further confusion regarding how much and what type of information pharmacists should supply to a patient when prescriptions were dispensed or OTC products sold. FDA's decisions on prescription/nonprescription status were also inconsistent and difficult to interpret.

Durham-Humphrey Amendment. To overcome these deficiencies, Congress passed the *Durham-Humphrey Amendment* to the Pure Food, Drug and Cosmetic Act in 1951. It set forth the specific statutory base for clearly separating drugs into one of two categories: prescription or non-prescription. The Durham-Humphrey Amendment specified three classes of drugs limited to prescription-only use: (1) drugs that are unsafe for use except under the supervision of a licensed practitioner because of toxicity or other potential for harmful effect, or the method of use, or collateral measures necessary for use; (2) certain drugs listed by name in the Act that cause physical dependence; and (3) drugs limited to prescription order under a manufacturer's original New Drug Application (NDA). The Durham-Humphrey Amendment required that prescription drugs display the "federal legend" *(CAUTION: Federal law prohibits dispensing without a prescription)* and that prescription drug packages contain a package insert with specified product information for the prescriber. Also, authority over the labeling of OTC products was shifted from the Federal Trade Commission (FTC) to the FDA. However, FTC retained control over advertising of OTC drugs.

As with the Pure Food, Drug and Cosmetic Act of 1938, the Kefauver-Harris Amendment resulted from a tragedy. In the late-1950's, the hypnotic thalidomide was developed.

It was believed, at that time, that laboratory experiments on several species of pregnant animals that failed to demonstrate teratogenicity (birth defects) could be extrapolated to prove that the drug was safe for use by pregnant women. Thalidomide showed that this is not true.

A number of women taking thalidomide delivered babies with severe birth defects. As a result, FDA was given extensive additional powers and the charge to assure that another thalidomide incident would never occur again

Kefauver-Harris Amendment. The *Kefauver-Harris Amendment* to the Pure Food, Drug, and Cosmetic Act was legislated in 1962 and allowed for switching drugs from Rx to OTC status. This Amendment transformed the previous system of premarket clearance into one that required FDA to affirm that clinical studies of new

Table 2
Top Ten Selling OTC Products in 1991*

Product	Marketer	1991 Sales
Advil	American Home Products	$285,000,000
Monistat 7	Johnson & Johnson	90,000,000
Sudafed	Burroughs Wellcome	81,000,000
Dimetapp	American Home Products	78,000,000
Motrin IB	Upjohn	74,000,000
Nuprin	Bristol-Myers Squibb	74,000,000
Benedryl	Warner Lambert	73,000,000
Gyne-Lotrimin	Schering Plough	63,000,000
Actifed	Burroughs Wellcome	61,000,000
Afrin	Schering Plough	54,000,000

*All 10 products had been switched from prescription-only status

drugs had demonstrated substantial evidence of effectiveness over placebos, as well as safety using the double-blind crossover system. The amendment required that drugs cannot be indicated for use by pregnant women or children until the safety of such use is proven.

It also required FDA to review all NDAs (new drug applications) approved since 1938 to assure those drugs also met the efficacy standards. Relating to OTC drugs, it gave FDA authority over labeling, and a monumental review of nonprescription drug products, most specifically their ingredients, and combinations with other therapeutic agents. The Durham-Humphrey Amendment required that OTCs be adequately labeled, but did not provide the mechanism to do so. The 1962 legislation mandated that FDA undertake this function. It created a mechanism for the orderly, systematic evaluation of the prescription versus nonprescription status of existing medication.

Following enactment of the Kefauver-Harris Amendment, FDA contracted with the National Academy of Sciences/National Research Council (NAS/NRC) to evaluate drugs marketed between 1938 and 1962 for efficacy. The shortcoming of the evaluation was that only 420 of an estimated 500,000 commercially-available OTC products were reviewed.

The OTC Drug Product Review

The solution to the problem began in 1972 when FDA convened 17 advisory panels of experts to review all OTC products for safety and efficacy for self-therapy. The panels were comprised of representatives of medical, pharmacy, and scientific communities as voting members, and consumers and industry representatives as non-voting members.

Among other assignments for these panels was the responsibility to identify prescription drug product ingredients which they believed, based upon personal review of available data, should be switched to OTC status.

When the review process was initiated in 1972, it was estimated that as many as 500,000 OTC products were marketed. Therefore, FDA directed the panels to investigate the body of knowledge on ingredients in OTC drug products. It had calculated that all of the products were comprised of 300 to 500 active ingredients. By the time the advisory panels concluded their work in the 1980's, they had studied over 700 ingredients encompassing more than 90 therapeutic categories, reported in more than 20,000 studies and other volumes of data and documents.

The review was divided into three phases. In phase 1, the panels determined whether OTC product ingredients were safe and ef-

fective and correctly labeled for self-therapy. Ingredients were classified as: Category I (safe and effective for the proposed use), Category II (unsafe and/or ineffective), or Category III (insufficient data available to determine final classification). Each of the advisory panels' reports to FDA were published in the Federal Register at various times. In each instance, FDA requested comments to the panel reports.

In phase 2, FDA reviewed the recommendations of the panels and the comments that had been submitted. The agency then published its conclusions as a tentative final monograph (TFM). Interested persons were again asked to submit comments or additional data.

Phase 3, which is still ongoing, consists of publication of Final Monographs. These establish standards for OTC product ingredients, labeling, and combining other therapeutic groups. When the review first started, drugs in Category II could continue to be marketed until publication of the Final Monograph. Since then, FDA has dropped Category III status. In 1992, the agency was directed to finish the review quickly and remove all Category II ingredients from the market.

The review panels identified and recommended 40 prescription drugs and/or dosage strengths for transfer. The panels did not review every prescription drug. They reviewed only those which were suggested for consideration for OTC status, or those identified as appropriate for OTC use. A few are still under review by FDA, but further impetus on switches from Rx to OTC will be based on submissions of New Drug Applications in the same manner as prescription drugs.

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CORRESPONDENCE COURSE QUIZ

Advising Patients on "Switch" Drug Products
Part I: The Process, Pros and Cons

1. The legislation that differentiated prescription from nonprescription drugs is the:
   a. Pure Food, Drug and Cosmetic Act.
   b. Waxman-Hatch Act.
   c. Durham-Humphrey Amendment.
   d. Kefauver-Harris Amendment.

2. All of the following statements about the sales of topical 0.5 percent hydrocortisone its first year as OTC are true EXCEPT:
   a. OTC sales amounted to $70 million.
   b. Rx sales amounted to $18 million.
   c. 75 percent of OTC sales were in pharmacies.
   d. Rx sales decreased 50 percent that year.

3. Studies have shown which range of all medical care in the U.S. is for self-therapy?
   a. Less than 25 percent
   b. 25-45 percent
   c. 45-65 percent
   d. 65-85 percent

4. The legislation that resulted from the sulfanilamide elixir tragedy was the:
   a. Pure Food, Drug and Cosmetic Act.
   b. Waxman-Hatch Act.
   c. Durham-Humphrey Amendment.
   d. Kefauver-Harris Amendment

5. The leading selling OTC Product in 1991 was:
   a. Actifed.
   b. Advil.
   c. Afrin.
   d. Benadryl.

6. Which of the following statements about the FDA OTC Advisory Panel is true?
   a. All OTC ingredients not proven to be both safe and effective had been removed from the market by 1992.
   b. The impetus for future switches from Rx to OTC status will be based on the panels' findings.
   c. The panels reviewed over 700 ingredients encompassing more than 90 therapeutic categories of drugs.
   d. Every prescription drug was reviewed for potential switch to OTC status.

7. A major concern about the escalation in the cost of health care in the US is that it:
   a. already accounts for 5 percent of GNP.
   b. already accounts for 8 percent of GNP.
   c. already accounts for 11 percent of GNP.
   d. already accounts for 15 percent of GNP.

8. The legislation that resulted from the thalidomide tragedy was the:
   a. Pure Food, Drug, and Cosmetic Act.
   b. Waxman-Hatch Act.
   c. Durham-Humphrey Amendment.
   d. Kefauver-Harris Amendment.

9. The thalidomide tragedy resulted from the drug causing:
   a. addiction.
   b. cancer.
   c. deaths.
   d. teratogenicity.

10. All of the following opinions have been expressed about the Rx to OTC switch EXCEPT:
   a. it increases the cost of health care because consumers purchase products they don't need.
   b. Americans are sophisticated enough to make good decisions on the benefits/risks of drugs.
   c. the switch provides a decrease in the number of expensive laboratory tests.
   d. The switch delays medical treatment of serious disease or poisonings.

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Part I: The Process, Pros and Cons

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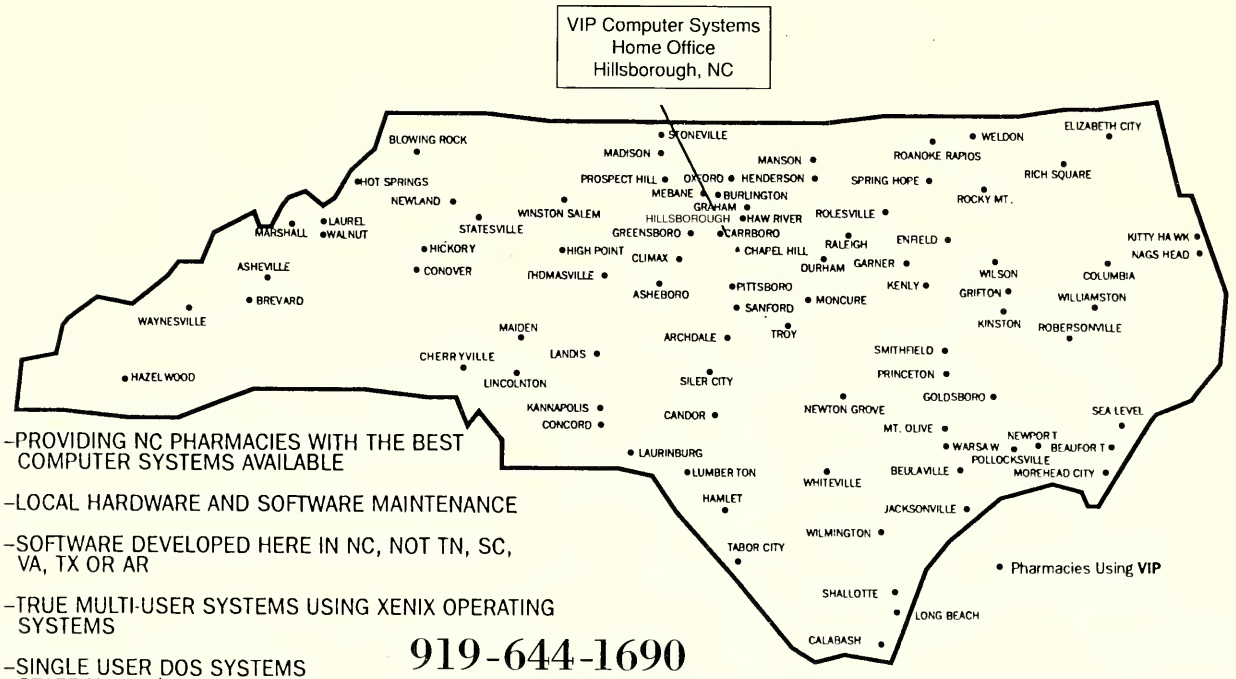

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June 1994 **Volume 74** **Number 6**

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President
Joseph A. Edwards Jr.
2025 St. Mary's St.
Raleigh, NC 27608
919•833•0557

President Elect
Mickey W. Watts
P.O. Box 39
Concord, NC 28026
704•782•2194

Past President
W. Robert Bizzell
3423 Buena Vista Court
Kinston, NC 28501
919•527•6929

Journal Staff

Editor and Publisher
Alfred H. Mebane III

Associate Editor and Advertising Coordinator
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Editorial Assistants
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Cathy H. Jordan

Business Manager
Betsy Mebane

NCPhA Office
P.O. Box 151
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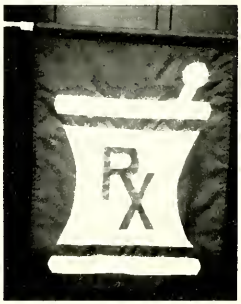

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Joseph A. Edwards Jr.
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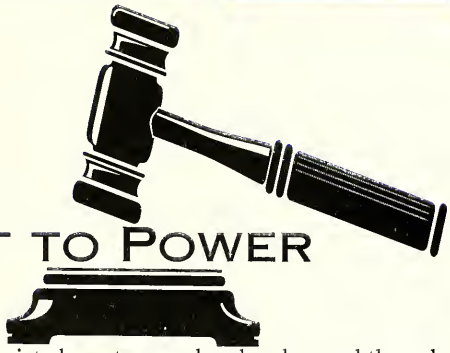

FROM RESPECT TO POWER

Thank you for allowing me the privilege of serving as president of the North Carolina Pharmaceutical Association. I pledge to you my time, my efforts, my experience, and my leadership in creating a more powerful association that will unite all demographics of pharmacy, strengthen our organizational structure, develop a more sound fiscal policy, expand our legislative clout, develop programs that will be proactive rather than reactive, and create a reason for all pharmacists in North Carolina to join and contribute to our great association.

Through Rob Bizzell's leadership we have made great progress in advancing the NCPhA. I thank Rob for allowing me to be an integral part of his administration. I thank Al Mebane for understanding the urgency for professional change and the vision leadership has in shaping our future. During this year I have had the privilege of meeting with a number of specialty pharmacy groups, and I am continually impressed with the commonality of our direction. I wish to acknowledge Ross Brickley, Cathy Fuquay, Jane Thompson, and all of the members of the NC Chapter of the Society of Consultant Pharmacists for establishing the NCPhA Academy of Consultant Pharmacists; and Bob Crocker, Bill Post, and all of the members of the NC Retail Pharmacy Association for establishing the Academy of Retail Pharmacists. The Consultant Pharmacists have tremendously advanced the role of the pharmacist in long term care facilities and continue to contribute to pharmacy through such programs as the Geriatric Certification Program. The Retail Pharmacy Group has been the champion of legislative action for pharmacy. Not only has it led the battle in passing the Pharmacy Freedom of Choice legislation, it has developed a broad-based, grassroots lobbying force and has employed the two most influential lobbying teams in North Carolina—Bill Rustin of the NC Merchants Association as Executive-Director and George Hearn of Johnson, Mercer, Hearn and Vinegar law firm as chief lobbyist. These two Academies will contribute immensely to the NCPhA agenda. I wish to thank Dan Garrett, Ron Small, Don Marsh, Fred Eckel, and many others from the NC Society of Hospital Pharmacists (NCSHP) for committing to the unity of pharmacy in North Carolina and working closely with the NCPhA in developing both dialogue and common action plans. Our working relationship is essential for the power game we are about to play. I thank the NC Board of Pharmacy for demonstrating progressive leadership. I thank Dean Bill Campbell and faculty of the UNC School of Pharmacy, and Dean Ron Maddox and faculty of Campbell University School of Pharmacy for playing such a vital role in phar-

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"You can't win any game unless you are ready to win." I believe we are ready to unite our efforts and win the big game.

I see a need to address the organizational structure of our association. I support the changes in the Constitution submitted by the Constitution and Bylaws Committee, and I am directing this committee to complete the rewrite of the Constitution and Bylaws and submit the final changes to the 1995 NCPhA Convention. I am directing the Executive Committee to develop a strategic plan beginning in June. All committees of the association will report their progress directly to the President on a monthly basis, and all reports will be submitted to the Executive Committee for action. A committee has been formed to develop a Policy and Procedure Manual for the Association. I am directing the Finance Committee to seek funding for two additional staff positions: an Associate Executive Director who will be responsible for membership services and a Director of Government Affairs, who will be responsible for legislative action including the employment of an Association lobbyist.

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National and state legislation is an essential component of this administration. I am directing the legislative committees to develop a grassroots lobbying force, to organize the second Pharmacy Day in the Legislature, to develop a plan to have NCPhA members appointed to all state and federal health boards and legislative commissions, and to find ways of strengthening NC PharmPAC.

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I am committed to having our continuing education programs focus on advancing pharmaceutical care in North Carolina. All of our programs should reflect this theme with emphasis placed on certification programs, exposure to innovative practices, and expanding the role of pharmacist in all prac-

tice settings.

I am very excited about the work being accomplished by the newly formed Pharmaceutical Care and Compensation Committee as a joint-venture with the NCSHP and the Health Reform and Health Policy Committee. I look forward to receiving their strategy reports.

The action plans I present to you today are very ambitious, challenging, exciting and greatly needed. To accomplish these goals will require more money, more member involvement, more leadership, and a more aggressive attitude. I am confident that the membership will make it happen. I want the NCPhA to be the association for all pharmacists. The power of pharmacy is achieved through our unity of purpose. We should at all times support one another, allow each of us to expand our pharmacy influence, communicate our needs to one another, develop common action plans, and champion the cause of pharmacy. As Connie Mack said, "You can't win any game unless you are ready to win." I believe we are ready to unite our efforts and win the big game. Let our power be realized in the results we accomplish. I request that you play an active role on our winning team.

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Deborah J. Dotters, M.D., Asst. Professor, UNC School of Medicine, Chapel Hill

ERT Effects on the Bone: Mechanisms and Benefits
Kirk Ways, M.D., Ph.D., Dir. of Endocrinology & Assoc. Professor
ECU School of Medicine, Greenville

ERT and the Heart: Mechanisms and Benefits
Doyle M. Cummings, Pharm.D., Clinical Clinical Assoc. Professor
UNC School of Pharmacy
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The Role of Progestins with ERT
Deborah S. Carson, Pharm.D., Assoc. Professor, Medical University of SC
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ERT Product Selection, Patient Monitoring & Education
Deborah J. Dotters, M.D.

Sunday, September 11

Incorporating OBRA '90 Regulations Into Your Practice
Glen E. Farr, Pharm.D., Asst., Dean & Professor, College of Pharmacy
University of Tennessee, Memphis, TN

The Legal Implications of OBRA '90
Walter L. Fitzgerald Jr., J.D., Assoc. Professor
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1994-95 NCPhA President Joseph A. Edwards Jr.

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Past President
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1994-95 NCPhA President
presented at the
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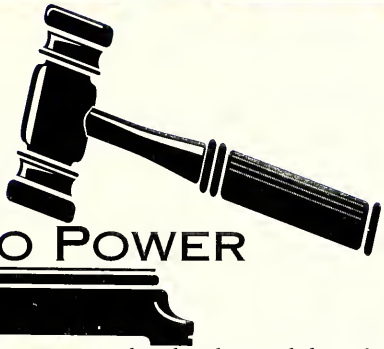
Tuesday, May 24, 1994



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I am very excited about the work being accomplished by the newly formed Pharmaceutical Care and Compensation Committee as a joint-venture with the NCSHP and the Health Reform and Health Policy Committee. I look forward to receiving their strategy reports.

The action plans I present to you today are very ambitious, challenging, exciting and greatly needed. To accomplish these goals will require more money, more member involvement, more leadership, and a more aggressive attitude. I am confident that the membership will make it happen. I want the NCPhA to be the association for all pharmacists. The power of pharmacy is achieved through our unity of purpose. We should at all times support one another, allow each of us to expand our pharmacy influence, communicate our needs to one another, develop common action plans, and champion the cause of pharmacy. As Connie Mack said, "You can't win any game unless you are ready to win." I believe we are ready to unite our efforts and win the big game. Let our power be realized in the results we accomplish. I request that you play an active role on our winning team.

Thank you.

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9th Annual Pharmacy Practice Seminar

September 10 & 11, 1994

Wilmington Hilton Hotel
301 N. Water Street, Wilmington, NC

Cosponsored by
UNC School of Pharmacy, North Carolina Pharmaceutical Association and the Coastal AHEC

BRIEF PROGRAM

Saturday, September 11

Menopause: Signs & Symptons of Estrogen Deficiency
Deborah J. Dotters, M.D., Asst. Professor, UNC School of Medicine, Chapel Hill

ERT Effects on the Bone: Mechanisms and Benefits
Kirk Ways, M.D., Ph.D., Dir. of Endocrinology & Assoc. Professor
ECU School of Medicine, Greenville

ERT and the Heart: Mechanisms and Benefits
Doyle M. Cummings, Pharm.D., Clinical Clinical Assoc. Professor
UNC School of Pharmacy
Assoc. Professor, ECU School of Medicine, Greenville

The Role of Progestins with ERT
Deborah S. Carson, Pharm.D., Assoc. Professor, Medical University of SC
Charleston, SC

ERT Product Selection, Patient Monitoring & Education
Deborah J. Dotters, M.D.

Sunday, September 11

Incorporating OBRA '90 Regulations Into Your Practice
Glen E. Farr, Pharm.D., Asst., Dean & Professor, College of Pharmacy
University of Tennessee, Memphis, TN

The Legal Implications of OBRA '90
Walter L. Fitzgerald Jr., J.D., Assoc. Professor
College of Pharmacy, University of Tennessee
Memphis, TN

WORKSHOPS

Pharmacotherapy of Asthma; Estrogen Replacement Therapy; Anticoagulant Therapy; Counseling a Patient for Travel; Pharmacotherapy of Tuberculosis; Food and Drug Interactions; Patient Counseling on Hypertension; Management of Diabetes Mellitus; Patient Counseling on Contraception; and Management of Angina.

☛ *If you have not received registration material for this program please call the NCPhA office at 1-800-852-7343.*

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presented at the NCPhA 114th Annual Convention
Tuesday, May 24, 1994

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What I want to talk about today is something that is of great concern to me, something that I have noticed even more by being involved with the profession as I have been during the past year. I believe there is a diminishing of professional and business ethics by those involved in the total picture of pharmaceutical services.

I will try not to lecture on this subject or sound like a revival preacher, but it is a subject that greatly concerns me. I'm not talking about one pharmacist's relationship with another, or the way a pharmacist interacts with doctors, patients, or regulatory agencies. My concern is with the way large entities, such as insurance companies and drug manufacturers, try to conduct business with pharmacists and pharmacies as a whole. I am not condemning the manufacturers and insurance companies, but am suggesting to them, and to ourselves, that there is a need to rethink the specific details of these relationships and to revamp them.

W. Robert Bizzell
1993-94 NCPhA President

One incident that hit home with me involved Merck/Medco/PAID Prescription. Two of my uncles had the first Chevrolet dealership in Wayne County, North Carolina. My family has owned General Motors vehicles since there was a General Motors. And I had recently purchased a new Suburban. My dismay about not being asked to participate in the GM/PAID network would have been obvious. When I confronted GM with these facts, they said they understood my feelings but could not do anything about having me included in the network. My support of and loyalty to GM mattered not. I contacted Merck about my dilemma, with a similar response. My support of and loyalty to MSD mattered not. PAID Prescriptions stated that the network was set up and was not accepting new members. What was the result of these discussions? I lost two customers with a calculated net loss of annual profit of $73.47; these customers had to find a new pharmacist whom, they both have told me, they are unhappy with and they are not getting the service they are accustomed to. My family has vowed not to buy any more GM products, and I have notified MSD that their reps are no longer welcome in my pharmacy and

that I will substitute their products every chance I get. The two companies that were making money from me and my business did not truly consider the consequences of their actions. They both stated that they were sorry I felt that way, but hoped their companies would stand on their own in regards to any future business dealings. My profit loss was minimal, virtually nonexistent, especially in light of the detrimental impact it has had on some of my fellow pharmacists. But it was the principle of the thing, something the representatives of the two companies said they understood but refused to do anything about.

These are not "bad" companies, but, in my opinion, they along with many others, are large entities that have not only forgotten the maxims of good business but have let the pursuit of large profits, through bogus cost savings, get in the way of what is the best for all concerned and has caused their ethics and morals to be compromised. Don't misunderstand me, I am not asking for any special favors for pharmacy, I am simply stating that all parties involved can work together to deliver the needed goods and services while at the same time realizing a reasonable profit and maintaining their dignity. It truly does not help anyone to do anything different. But in reality, we pharmacists have allowed this type of behavior to exist. We have not shown our true value and importance in the total concept of health care. We have created this predicament. By not being involved, by not writing letters and making phone calls, by not taking a stand on pertinent issues, by sacrificing our principles, and by not showing in detail the cost savings that good pharmaceutical care can produce, we have allowed ourselves to be walked all over without those doing the walking thinking twice about what they were doing. We have had knee jerk reactions to such behavior instead of being proactive to prevent it. It is time for this to stop. We must all get involved now before it is too late.

As your exiting president this is my final charge to the membership. Get involved politically, both through your efforts and your financial contributions. Get involved in your profession and make it work for the betterment of you, your fellow pharmacists, and for society. Let everyone know that it is you that is concerned about the public's well being and no one can better serve the vast ranges of their needs than you. Remember, if you or your profession fails it's nobody's fault but your own. Don't allow yourself to be in the position to accept any such blame. This message may appear to have a pharmacy owner or independent pharmacist tone, but it is not intended to. If any of us allow another entity to control the way our fellow pharmacists practice any segment of our profession, you can well believe it will soon happen to the rest. We must all be united in our efforts to prevent this type of tragedy from occurring.

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I would challenge each one of you to take charge of your business, your profession, your life. Make your voice heard. Stand up for yourself and never settle for scraps thrown from the table.

Make a difference.

Thank you.

Act Now To Join PDN

Pharmacy Direct Network

Formed *by* Community Pharmacy *for* Community Pharmacy

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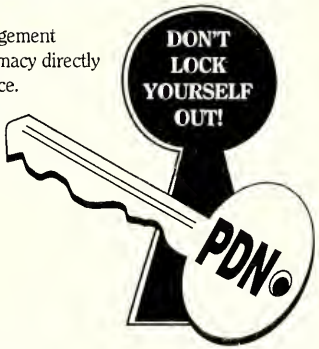

The development of the Pharmacy Direct Network, and its commitment to establishing a national network for all community retail pharmacies in which no independent or chain pharmacy can be locked out of participation, is good for all consumers.

–NARD

Key Elements About PDN To Remember Are:

- PDN is a national network in which all community retail pharmacies can participate– *NO LOCKOUT*
- Consumer access to pharmacy care will be expanded
- PDN will increase competition with traditional pharmacy benefit managers and better services will result
- Supported by all segments of community retail pharmacy

I want to become a PDN Charter Member. Please send my application kit to the address below:

Name _____ Company _____

Address _____

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Phone (____) _____ Fax (____) _____

# of Pharmacies _____

Fax your reply today to 1-800-736-7396, or mail to: PDN, P.O. Box 1417-C31, Alexandria, VA 22313-1480.

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Convention Highlights '94

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Special Recognitions

Geigy's Pharmacist Mate Award
Suzanne Bizzell, Kinston

McKesson Incoming President's Award
Joseph A. Edwards Jr., Raleigh

NARD Leadership Award
Joseph A. Edwards Jr., Raleigh

1994 Pharmacist–of–the–Year
M. Keith Fearing Jr.

Inductees to the 50-Plus Club
Merwin S. "Bill" Canaday, Four Oaks
W.H. Hollowell Jr., Edenton
V.J. Lindenschmidt, Wilmington
J. Ralph Teague, Reidsville
N.O. McDowell Jr., Scotland Neck

Syntex UNC Preceptor of the Year Award
Rebecca W. Chater, Fayetteville

Syntex Campbell University Preceptor of the Year Award
Ronald H. Small, Winston-Salem

Presidential Citations
F. Michael James, Raleigh
Julian W. Harris, Chapel Hill
Kristen Thomas, Buies Creek
Eric Wolford, Chapel Hill
John Zatti, Durham

Special Commendation from NC Pharmacists
Senator Sandy Sands, Reidsville

Frank Hemingway of Bethel, *left*, recipient of the Wyeth-Ayerst Bowl of Hygeia Award.

John Andrews of Winston-Salem, *right*, was presented the DuPont Pharma Innovative Pharmacy Practice Award by DuPont Merck Pharmaceutical representative Roy Rhoden.

Connie Barnes of Benson, was presented with the Distinguished Young Pharmacist Award by Marion Merrell Dow representative Ken Wentzel.

Rob Bizzell of Kinston was presented with the E.R. Squibb Past President's Award in recognition of his tenure as NCPhA president. The award was presented by Squibb representative Tara Poore.

Mike James of Raleigh, was recognized with the Don Blanton Award for his outstanding contributions to Pharmacy over the past twelve months.

Award Presenters: *back row, from left,* Whit Moose, Steve Caiola, Jack Deavours, Larry Swanson, Tara Poore, Frank Stephenson. Recipients: *front row, from left*, Joey Edwards, Rebecca Chater, Ron Small, Rob Bizzell, Suzanne Bizzell, Bill Hollowell, and Bill Canaday.

ANNUAL REPORT OF THE NCPhA PUBLIC AND PROFESSIONAL RELATIONS COMMITTEE

The main focus of the Committee is to sell to selected audiences the value of products and services provided by pharmacists. Audiences include the general public, civic and service clubs, professional groups, other health care providers and third party payors. Major elements in the Committee's activities and plans for their implementation are:

1. Establish an NCPhA speakers assistance program to be known as the Very Involved Pharmacist (VIP) program. The idea is to motivate pharmacists to make presentations about pharmacy to targeted audiences in their local community. To assist them, speakers assistance kits will be available through NCPhA. These kits include "how to" hints, text and outlines for speeches, videos, 35mm slides, overhead transparencies and question and answer guides.

The VIP program will be announced and launched at the 1994 Annual Convention of NCPhA. Local association presidents have been invited to a breakfast at which the VIP program will be previewed. They will be asked to devote a meeting of their local group to the VIP program.

The full convention will hear of the program at the second general session and members of the committee will man a booth in the exhibit hall to provide more details and answer questions.

2. The committee will facilitate through the AHEC, presentations by pharmacy students to school children the programs, "Katies Kids" and "Listen To Your Body Parts."

3. The committee will pursue a year long effort to gain media exposure for the pharmacy story.

The Wednesday Noon News "Call The Pharmacist" segment on WRAL-TV in Raleigh will be used as a prototype for similar programs in other major media markets. Appearances by pharmacists on other call in or talk shows will be arranged.

A pharmacist will be identified in each county who knows the owner/manager or reporter at the local TV or radio outlet. These contacts will be used to gain placement of our PSA's, videos and spokespersons.

4. Pharmacy week in October is being planned jointly by NCPhA and NCSHP. It is expected a new video can be premiered during Pharmacy Week, in addition to many other activities which highlight the important role played by pharmacists in health care.

NARD's
96th Annual
Convention
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October 16-19, 1994
Boston, Massachusetts

Revolutionizing American Pharmacy

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N·A·R·D

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9. Do NOT give this medicine to children under 6 years of age, unless directed by a doctor.

10. Consult your doctor or pharmacist before taking other medicines containing an antihistamine.

Patient Counseling for OTC Oral Decongestants

1. This medicine is used for temporary relief of nasal congestion or stuffiness from colds, sinusitis, hay fever or other upper respiratory allergies.

2. The regular tablets and capsules can be taken with food or on an empty stomach.

3. The liquid dosage forms of this medicine should be measured accurately. Specially marked devices are available to assure you measure an accurate dose. If none is supplied with the product you select and you want one, ask your pharmacist.

4. The controlled release forms of this medicine should be swallowed whole. Do NOT chew or crush them.

5. Possible side effects from this medicine include nervousness, dizziness, restlessness, and trouble sleeping.

6. Do NOT use this medicine if you have high blood pressure, diabetes, heart or thyroid disease or difficulty in urination due to enlarged prostate without first checking with your doctor.

7. Do NOT take this medicine if you are taking a prescription drug for depression without checking with your doctor.

8. Do NOT take other decongestants without checking with your doctor or pharmacist.

9. Do NOT give the liquid form of this medicine to children under 2 years of age, or the controlled release capsules or tablets to children under 6 years of age, unless directed by your doctor.

10. If symptoms do NOT improve in 7 days or a high fever occurs, contact your doctor.

Patient Counseling for OTC Antitussive Antihistamines

1. This medicine is used for the temporary relief of coughs due to minor throat and bronchial irritation as may occur with the common cold or with inhaled irritants.

2. The liquid dosage forms of this medicine should be measured accurately. Specially marked devices are available to assure you measure an accurate dose. If none is supplied with the product you selected and you want one, ask your pharmacist.

3. Possible side effects from this medicine include drowsiness, dry mouth, dizziness or blurred vision.

4. This medicine may make you drowsy or dizzy. Do NOT drive a car, operate dangerous machinery or do jobs that require alertness until you know how you are going to react to it.

5. Do NOT drink alcoholic beverages if they increase drowsiness.

6. Do NOT take this medicine for persistent or chronic cough such as occurs with asthma, emphysema, smoking, or when excessive phlegm is produced unless told to do so by your doctor.

7. Do NOT take this medicine if you have glaucoma, asthma, other respiratory problems or difficulty in urination due to enlarged prostate without first checking with your doctor.

8. Call your doctor if your cough lasts longer than 7 days, if it recurs, or if it is accompanied by a high fever, rash or persistent headache.

9. It may help clear chest congestion if you drink 8 to 10 glasses of water each day while taking this medicine.

10. Do NOT give this medicine to children under 6 years of age, unless directed by a doctor.

11. Consult your doctor or pharmacist before taking other medicines containing an antihistamine.

Patient Counseling for OTC Ibuprofen

1. This medicine is used for the temporary relief of headaches, minor aches and pains, toothache, backache, minor pain of arthritis, menstrual cramps and reduction of fever.

2. Take the dose with a full glass of water.

3. If occasional and mild heartburn, upset stomach or stomach pain occur, you may take this medicine with food. If these continue, consult your doctor.

4. Do NOT take this medicine if you are allergic to aspirin or ibuprofen.

5. Possible side effects from this product include nausea, stomach pain, abdominal pain, mild heartburn and skin rash.

6. STOP taking this medicine and consult your doctor if you experience any unusual symptoms not present before you began taking it.

7. Do NOT take this medicine for more than 3 days for fever or 10 days for pain.

8. Do NOT give this medicine to children under 12 years of age, unless specifically directed by a doctor.

9. Consult your doctor or pharmacist before taking other medicines containing ibuprofen.

A professional development program made possible by an educational grant from

SEARLE

Patient Counseling for OTC Sleep-aids

1. This medicine is used to help reduce difficulty in falling asleep.

2. This medicine should be taken 30 minutes before bedtime as directed on the product label.

3. Do NOT drive a car, operate machinery, or perform tasks that require alertness until you know how you will react to this medicine.

4. Do NOT drink alcoholic beverages in the evening while taking this medicine.

5. Do NOT give to children under 12 years of age.

6. If sleeplessness continues for more than 2 weeks, call your doctor.

7. Do NOT take this medicine if you have asthma, glaucoma, emphysema, chronic lung disease, shortness of breath, difficulty breathing, urinary tract obstruction or prostate gland enlargement, unless directed by your doctor.

8. Consult your doctor or pharmacist before taking other medicines containing an antihistamine.

Patient Counseling for OTC Loperamide

1. This medicine is used to treat diarrhea.

2. For best results, take this medicine at the first sign of diarrhea and after each subsequent bowel movement but no more than 4 doses in any 24-hour period unless directed by your doctor.

3. The liquid dosage forms of this medicine should be measured accurately. Use the specially marked device that comes with the liquid to assure you measure an accurate dose. If none is supplied with the product you selected and you want one, ask your pharmacist.

4. Do NOT use this medicine if blood is present in your bowel movements.

5. Contact your doctor if nausea or signs of CNS depression such as dizziness or drowsiness occur.

6. Do NOT give this medicine to children under 3 years of age or use more than 2 days or in the presence of high fever unless directed by your doctor.

7. It is best to drink lots of fluids (8 or more glassfuls per day) when you have diarrhea to replace the water loss.

8. If you are taking antibiotics or have a history of liver disease, contact your doctor before using this medicine.

Adapted from the Pharmex PALs (patient advisory leaflets). For more information, call 1-800-233-0585

CORRESPONDENCE COURSE QUIZ

Advising Patients on "Switch" Drug Products
Part II: Counseling on Systemic Drugs Switched from Prescription to OTC Status

1. All of the following is appropriate information to counsel patients when selecting loperamide *except:*
   a. Do not give this product to children under 3 years of age unless directed by your doctor.
   b. If the diarrhea has not cleared up after 7 days' use, contact your doctor.
   c. Drink lots of fluids when you have diarrhea.
   d. Tell your doctor if nausea, dizziness or drowsiness occur.

2. Prior to 1972, prescription drugs were switched to OTC status:
   a. by regulation on request from manufacturers or other interested persons.
   b. by the FDA's OTC drug product ingredient review mechanism.
   c. by the New Drug Application mechanism.
   d. on petition by the Over-The-Counter Drug Advisory Committee

3. All of the following drugs were switched from Rx-only to OTC status prior to 1972 using the mechanism referred to in question #2 *except:*
   a. acetaminophen.
   b. dextromethorphan.
   c. ibuprofen.
   d. tolnaftate.

4. The largest group of products switched from Rx-only to OTC status is used to treat:
   a. arthritis.
   b. diarrhea.
   c. menstrual problems.
   d. sinus problems.

5. The advice "Do not give the liquid form of this medicine to children under 2 years of age," and, "If symptoms do not improve in 7 days or a high fever occurs, contact your doctor" is most appropriate for which of the following groups of drugs?
   a. Ibuprofen
   b. Antihistamines
   c. Antitussive Antihistamines
   d. Oral decongestants

6. In mid-1991, FDA announced its intention to ban the OTC marketing of 111 ingredients in which of the following classes of drugs?
   a. Nasal decongestants
   b. Ophthalmic vasoconstrictors
   c. Psoriasis remedies
   d. Weight control products

7. Patients selecting an OTC antihistamine should be advised to check with their doctor first if they have which of the following diseases?
   a. Diabetes
   b. Glaucoma
   c. Heart disease
   d. High blood pressure

8. The advice referred to in question #7 is appropriate for all of the following *except:*
   a. antidiarrheals (e.g., loperamide)
   b. antitussives (e.g., Benylin)
   c. hay fever medicines (e.g., Dimetane)
   d. sleep aids (e.g., Sominex-2)

9. In 1993, FDA announced there was a lack of evidence for making a claim of effectiveness for all of the previously available ingredients in which of the following groups of OTC products?
   a. Antidiarrheal remedies
   b. Pediculicides
   c. Smoking deterrents
   d. Oral decongestants

(Note: There are only 9 questions with this lesson.)

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Please circle correct answer

1. a b c d	4. a b c d	7. a b c d
2. a b c d	5. a b c d	8. a b c d
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What's Your Pharmacoeconomics I.Q.?

Test yourself! Answers at bottom of page.

1. Outpatient prescription medicines account for approximately what percent of total health care spending?
   a. 5% b. 10% c. 15% d. 20%

2. How many years of patent life typically remain once a new drug is approved for marketing?
   a. 17 b. 10-12 c. 3-5 d. 5-7

3. Which amount is the closest to the actual cost of dispensing a prescription in a full-service pharmacy?
   a. $2.00 b. $3.35 c. $6.00 d. $1.25

4. Out of every ten new drugs marketed, on average, how many achieve sufficient revenue to cover costs and make a profit?
   a. 8 b. 2 c. 6 d. 1

5. Considering drug prices and manufacturing wages in the U.S. & Mexico, how long do Mexicans work compared to Americans to pay for Rx drugs?
   a. same # hours b. Half as long c. more than twice as long

6. What is the current estimated cost of bringing a new drug to market?
   a. $175 million b. $359 million c. $500 million d. $100 million

7. Which component of health care costs are patients most aware of because they pay out of pocket?
   a. physician b. prescription c. hospital d. emergency room

8. What percent of sales, on average, is spent on research by research-intensive pharmaceutical manufacturers?
   a. 25 b. 16 c. 8 d. 11

9. Total health care expenditures have risen to almost 13% of GNP since 1960. How have pharmaceutical costs behaved as a % of GNP during that period?
   a. risen to 3% b. fallen to 0.5% c. held nearly constant under 1%

10. If pharmaceutical industry profits were eliminated, how much would this reduce total national health care costs?
    a. 3% b. 5% c. less than 1% d. 10%

Answers: 1 a. 5%; 2 d. 5-7; 3 c. $6.00; 4 b. 2; 5 c. more than twice as long; 6 b. $359 million; 7 b. prescription; 8 b. 16; 9 c. held nearly constant under 1%; 10 c. less than 1%

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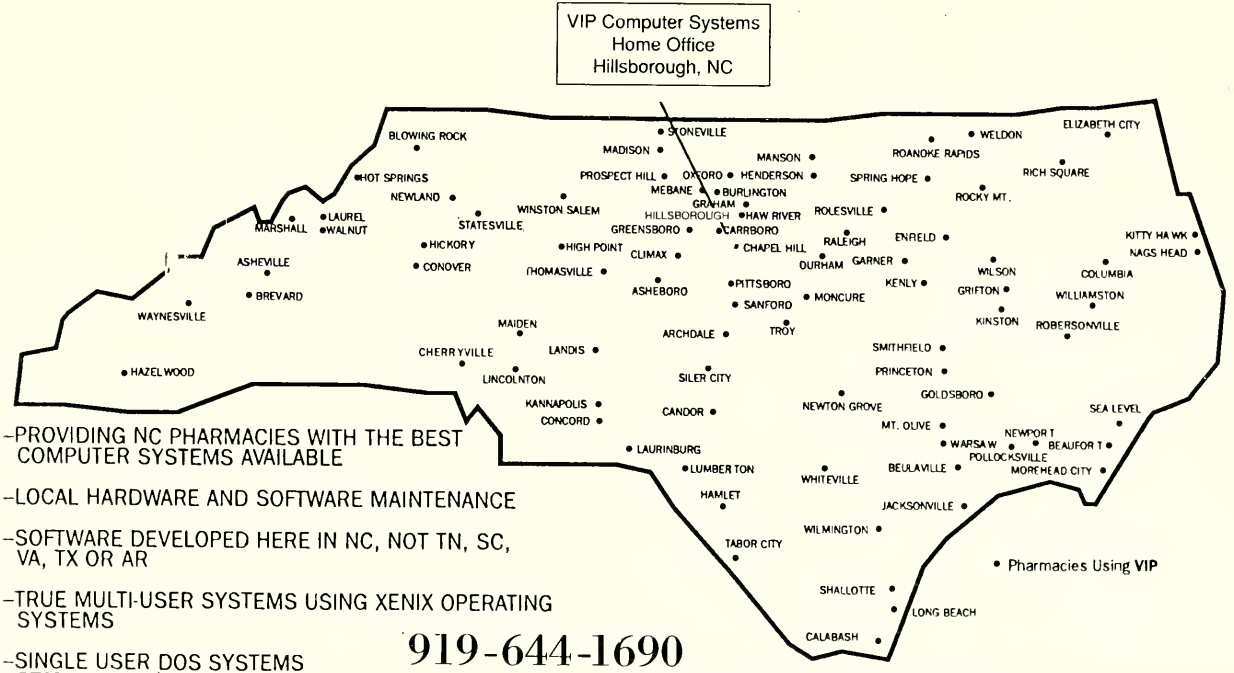

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lems or difficulty in urination due to enlarged prostate without first checking with your doctor.

9. Do NOT give this medicine to children under 6 years of age, unless directed by a doctor.

10. Consult your doctor or pharmacist before taking other medicines containing an antihistamine.

Patient Counseling for OTC Oral Decongestants

1. This medicine is used for temporary relief of nasal congestion or stuffiness from colds, sinusitis, hay fever or other upper respiratory allergies.

2. The regular tablets and capsules can be taken with food or on an empty stomach.

3. The liquid dosage forms of this medicine should be measured accurately. Specially marked devices are available to assure you measure an accurate dose. If none is supplied with the product you select and you want one, ask your pharmacist.

4. The controlled release forms of this medicine should be swallowed whole. Do NOT chew or crush them.

5. Possible side effects from this medicine include nervousness, dizziness, restlessness, and trouble sleeping.

6. Do NOT use this medicine if you have high blood pressure, diabetes, heart or thyroid disease or difficulty in urination due to enlarged prostate without first checking with your doctor.

7. Do NOT take this medicine if you are taking a prescription drug for depression without checking with your doctor.

8. Do NOT take other decongestants without checking with your doctor or pharmacist.

9. Do NOT give the liquid form of this medicine to children under 2 years of age, or the controlled release capsules or tablets to children under 6 years of age, unless directed by your doctor.

10. If symptoms do NOT improve in 7 days or a high fever occurs, contact your doctor.

Patient Counseling for OTC Antitussive Antihistamines

1. This medicine is used for the temporary relief of coughs due to minor throat and bronchial irritation as may occur with the common cold or with inhaled irritants.

2. The liquid dosage forms of this medicine should be measured accurately. Specially marked devices are available to assure you measure an accurate dose. If none is supplied with the product you selected and you want one, ask your pharmacist.

3. Possible side effects from this medicine include drowsiness, dry mouth, dizziness or blurred vision.

4. This medicine may make you drowsy or dizzy. Do NOT drive a car, operate dangerous machinery or do jobs that require alertness until you know how you are going to react to it.

5. Do NOT drink alcoholic beverages if they increase drowsiness.

6. Do NOT take this medicine for persistent or chronic cough such as occurs with asthma, emphysema, smoking, or when excessive phlegm is produced unless told to do so by your doctor.

7. Do NOT take this medicine if you have glaucoma, asthma, other respiratory problems or difficulty in urination due to enlarged prostate without first checking with your doctor.

8. Call your doctor if your cough lasts longer than 7 days, if it recurs, or if it is accompanied by a high fever, rash or persistent headache.

9. It may help clear chest congestion if you drink 8 to 10 glasses of water each day while taking this medicine.

10. Do NOT give this medicine to children under 6 years of age, unless directed by a doctor.

11. Consult your doctor or pharmacist before taking other medicines containing an antihistamine.

Patient Counseling for OTC Ibuprofen

1. This medicine is used for the temporary relief of headaches, minor aches and pains, toothache, backache, minor pain of arthritis, menstrual cramps and reduction of fever.

2. Take the dose with a full glass of water.

3. If occasional and mild heartburn, upset stomach or stomach pain occur, you may take this medicine with food. If these continue, consult your doctor.

4. Do NOT take this medicine if you are allergic to aspirin or ibuprofen.

5. Possible side effects from this product include nausea, stomach pain, abdominal pain, mild heartburn and skin rash.

6. STOP taking this medicine and consult your doctor if you experience any unusual symptoms not present before you began taking it.

7. Do NOT take this medicine for more than 3 days for fever or 10 days for pain.

8. Do NOT give this medicine to children under 12 years of age, unless specifically directed by a doctor.

9. Consult your doctor or pharmacist before taking other medicines containing ibuprofen.

Patient Counseling for OTC Sleep-aids

1. This medicine is used to help reduce difficulty in falling asleep.

2. This medicine should be taken 30 minutes before bedtime as directed on the product label.

3. Do NOT drive a car, operate machinery, or perform tasks that require alertness until you know how you will react to this medicine.

4. Do NOT drink alcoholic beverages in the evening while taking this medicine.

5. Do NOT give to children under 12 years of age.

6. If sleeplessness continues for more than 2 weeks, call your doctor.

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1. This medicine is used to treat diarrhea.

2. For best results, take this medicine at the first sign of diarrhea and after each subsequent bowel movement but no more than 4 doses in any 24-hour period unless directed by your doctor.

3. The liquid dosage forms of this medicine should be measured accurately. Use the specially marked device that comes with the liquid to assure you measure an accurate dose. If none is supplied with the product you selected and you want one, ask your pharmacist.

4. Do NOT use this medicine if blood is present in your bowel movements.

5. Contact your doctor if nausea or signs of CNS depression such as dizziness or drowsiness occur.

6. Do NOT give this medicine to children under 3 years of age or use more than 2 days or in the presence of high fever unless directed by your doctor.

7. It is best to drink lots of fluids (8 or more glassfuls per day) when you have diarrhea to replace the water loss.

8. If you are taking antibiotics or have a history of liver disease, contact your doctor before using this medicine.

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1. Outpatient prescription medicines account for approximately what percent of total health care spending?
   a. 5% b. 10% c. 15% d. 20%

2. How many years of patent life typically remain once a new drug is approved for marketing?
   a. 17 b. 10-12 c. 3-5 d. 5-7

3. Which amount is the closest to the actual cost of dispensing a prescription in a full-service pharmacy?
   a. $2.00 b. $3.35 c. $6.00 d. $1.25

4. Out of every ten new drugs marketed, on average, how many achieve sufficient revenue to cover costs and make a profit?
   a. 8 b. 2 c. 6 d. 1

5. Considering drug prices and manufacturing wages in the U.S. & Mexico, how long do Mexicans work compared to Americans to pay for Rx drugs?
   a. same # hours b. Half as long c. more than twice as long

6. What is the current estimated cost of bringing a new drug to market?
   a. $175 million b. $359 million c. $500 million d. $100 million

7. Which component of health care costs are patients most aware of because they pay out of pocket?
   a. physician b. prescription c. hospital d. emergency room

8. What percent of sales, on average, is spent on research by research-intensive pharmaceutical manufacturers?
   a. 25 b. 16 c. 8 d. 11

9. Total health care expenditures have risen to almost 13% of GNP since 1960. How have pharmaceutical costs behaved as a % of GNP during that period?
   a. risen to 3% b. fallen to 0.5% c. held nearly constant under 1%

10. If pharmaceutical industry profits were eliminated, how much would this reduce total national health care costs?
    a. 3% b. 5% c. less than 1% d. 10%

Answers: 1 a. 5%; 2 d. 5-7; 3 c. $6.00; 4 b. 2; 5 c. more than twice as long; 6 b. $359 million; 7 b. prescription; 8 b. 16; 9 c. held nearly constant under 1%; 10 c. less than 1%

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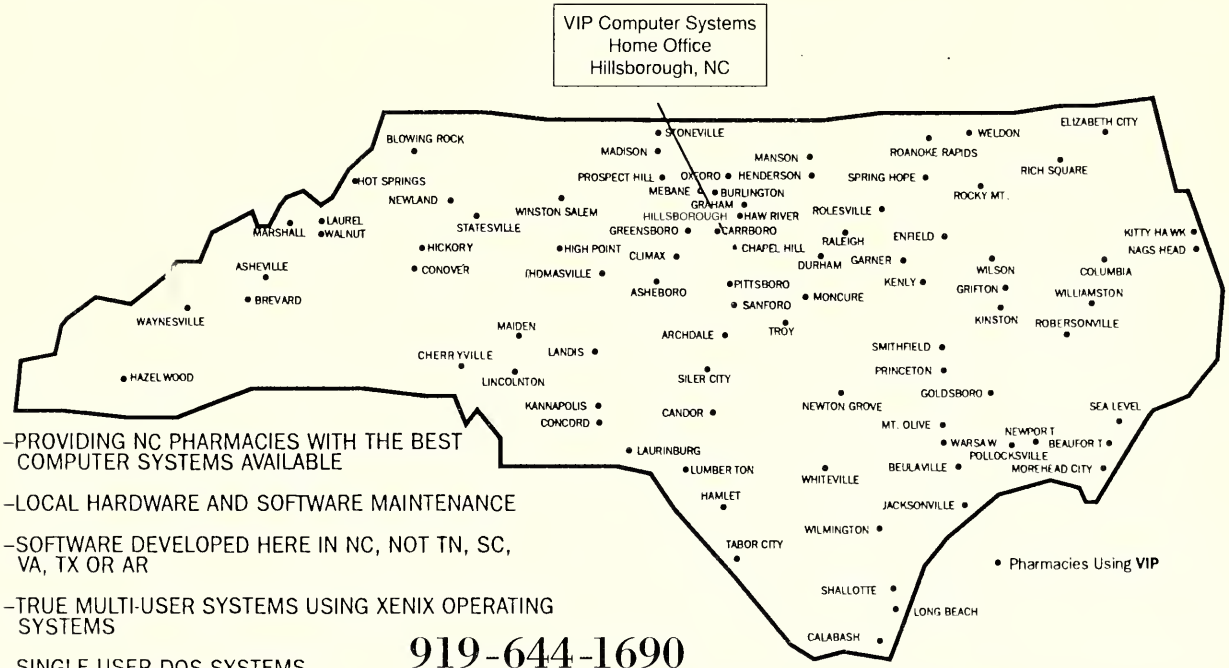

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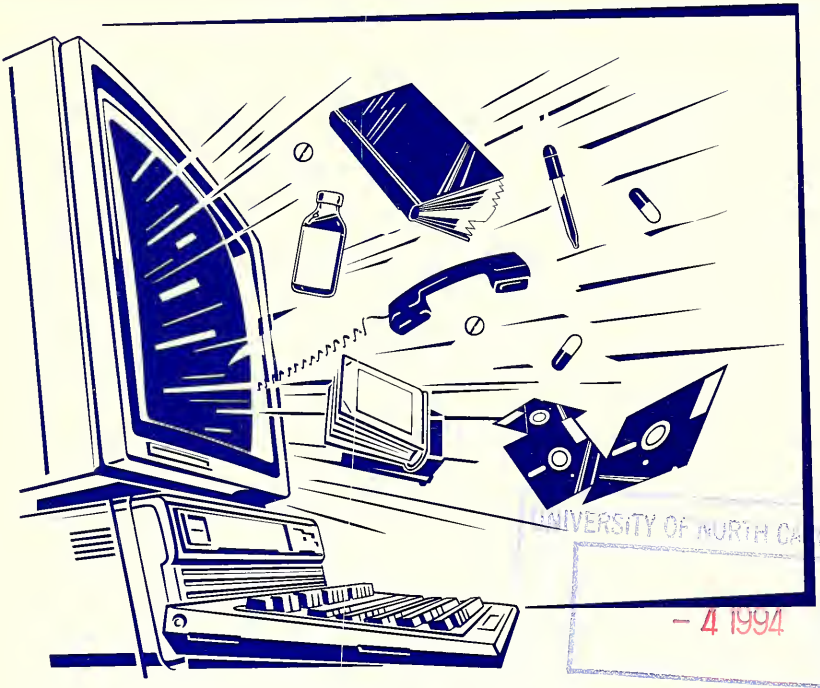

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Officers

President
Joseph A. Edwards Jr.
2025 St. Mary's St.
Raleigh, NC 27608
919•833•0557

President Elect
Mickey W. Watts
P.O. Box 39
Concord, NC 28026
704•782•2194

Past President
W. Robert Bizzell
3423 Buena Vista Court
Kinston, NC 28501
919•527•6929

Journal Staff

Editor and Publisher
Alfred H. Mebane III

Associate Editor and Advertising Coordinator
Terri M. Little

Editorial Assistants
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Cathy H. Jordan

Business Manager
Betsy Mebane

Editorial Resident
John D. Pitts

NCPhA Office
P.O. Box 151
Chapel Hill, NC 27514

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PRESIDENT'S MESSAGE

GET INVOLVED

Do you want to join a winning team? How about one with plenty of options for participation? Do you want to do something that will make you feel good, help others, and advance your profession into the twenty-first century? The North Carolina Pharmaceutical Association needs you! It is now time to join all the forces of pharmacy and make our voice heard throughout North Carolina and the nation. All it takes is every member of our association to play a role, large or small, in forging a new direction for pharmacy–one of assertiveness, one of enthusiasm, and one of excitement and risk. What it takes is for you to get involved! We have many ways for this to happen in a year of action in NCPhA.

I wish to thank all of those members who have signed up for our standing committees. The committee chairmen will soon be receiving all of the appointments. If you have not signed up and would like to do so, please let the staff know now. I shall briefly detail the many projects, programs and services I am advocating.

A strategic planning committee will be meeting in early fall to develop a three-year strategic plan for NCPhA and a one-year action plan. Much of the foundation for this group's work has already been laid. The Membership Committee has developed a comprehensive membership drive called "Membership 3000," which is already in progress. I am committed to adding 600 members to our association by the 1995 Convention.

The Public and Professional Relations Committee has already initiated its "Very Involved Pharmacist" program and will strive to present this wonderful workshop to all local pharmacy associations in the state. The Constitution and Bylaws Committee will complete its rewrite this year.

Everyone is needed to participate in the second Pharmacy Day in the North Carolina Legislature to be held in early 1995. Restructuring our entire attitude and involvement in political action will be high on our agenda. Continuing Education focused around the theme "Pharmaceutical Care" will bring new and innovative approaches to preparing pharmacists for future expanded roles in health care. The Pharmaceutical Care and Compensation Committee is developing a methodology of pilot programs and certification standards. The Editorial Advisory Committee will insure that this Journal is in your hands twelve times this year. The Finance Committee is examining every aspect of our fiscal management programs and producing an action plan for efficiency and spending priorities. And this is just the start of something really great. Did I mention you are needed for this ambitious plan to become reality? United, we can move mountains, but everyone needs to contribute their time and effort.

I am so very excited about the tremendous response and excitement that has been generated this year. I promise to keep you informed of all the great things happening in NCPhA. I never want anyone to say, "What is NCPhA doing for me?" I want it to be obvious. I want every member to honor their membership and enthusiastically recruit others to join. Let's keep the momentum. Thank you for allowing me to serve as your president. *Joseph A. Edwards Jr., 919-833-0557. President and owner of Edwards Pharmacy in Raleigh.*

Pharmacist Quiz

What resources can help pharmacists promote the value of their patient-care services to the public?

- ☐ a. **National Pharmacy Week** promotional kit **(October 23-29, 1994)**
- ☐ b. **"Talk About Prescriptions" Month** planning kit **(the month of October)**
- ☐ c. All of the above

Answer a: National Pharmacy Week. October 23-29, 1994. The American Pharmaceutical Association (APhA) is the official source of National Pharmacy Week promotional materials. APhA members can order their free promotional kit by writing Trexco, APhA's promotions company, 1251 Gordon Park Road, Augusta, GA 30901or by calling 800-950-7701, ext. 55. APhA members must include their membership number and non-members should send a check for $5, payable to Trexco.

Answer b: "Talk About Prescriptions" Month, the "Talk About Prescriptions" Month planning kit is produced by the National Council on Patient Information and Education (NCPIE). It is available by sending a $5 check to "Talk About Prescriptions" Month kit, NCPIE, 666 11th St., NW, Suite 810, Washington, DC 20001. For more information about "Talk About Prescriptions" Month, call 202-347-6711.

Answer c: All of the above. If you chose "c" then you're on your way to better visibility in your community! (Both kits will be available around August 1, 1994)

You have the answers...so order your promotional materials today!

NCPIE'S "TALK ABOUT PRESCRIPTIONS" MONTH AND APHA'S "NATIONAL PHARMACY WEEK" TARGET NONCOMPLIANCE

"COMMUNICATIONS IS GOOD MEDICINE," will be the message for health professionals and consumers this October when the National Council on Patient Information and Education (NCPIE) launches "Talk about Prescriptions Month" in conjunction with the American Pharmaceutical Association's (APhA) "National Pharmacy Week." The theme emphasizes the vital role patient-provider communication plays in promoting medication compliance and positive patient health outcomes. APhA and NCPIE team up annually with a joint theme to unify "Talk About Prescriptions" Month and National Pharmacy Week, and the two organizations encourage pharmacists to plan events all month long, culminating during National Pharmacy Week, October 23-29.

"Communication about prescription medicines is critical since 30-50% of the 1.8 billion prescriptions dispensed annually are used improperly, resulting in prolonged and repeated illnesses, avoidable side effects and drug interactions, repeat doctor visits, increased hospitalizations and even death," said NCPIE Executive Director Robert Bachman. Through the annual "Talk About Prescriptions" Month, health care professionals and patients can receive communication and counseling tips, access to educational resources, and support for improving more effective communication about prescription medicines.

NCPIE recently announced the observance and the availability of "Talk About Prescriptions" Month planning and promotional materials in a mailing to 175,000 health care professionals, its largest-ever direct mail campaign. Printing and distribution of the six-page "Talk About Prescriptions" Month announcement brochure was supported by educational grants from two long-standing NCPIE member organizations - The United States Pharmacopeia (USP) and Schering/Key Pharmaceuticals.

A "Talk About Prescriptions" Month Planning Kit is available to assist in organizing and conducting public, patient or health care provider information and education campaigns this October and beyond. The kit costs $5.00 and includes:

- "Talk about Prescriptions" Month Planning Guide - featuring a series of medicine communication articles, "factoids," practical tips and advice and a list of educational resources.
- 31 "Medicine Moments" for the Radio - pre-scripted radio public service announcements (PSAs: one for every day in October. Organizations can add their name to the closing credit line and be recognized in their community.
- Talk About Prescriptions" Month Poster -- featuring the 1994 theme, "Communication is Good Medicine."
- Printed Resources -- including a sample proclamation, media tips and medication misuse fact sheets.
- "Talk About Prescriptions" Month Coupon - good for special discounts on NCPIE educational resources -- a $5.00 value.

The American Pharmaceutical Association's (APhA) promotional kit is also available after August 1 and will provide pharmacists with more tools to position themselves as patient-care managers during National Pharmacy Week and throughout the year.

Conducting health screenings, "brown bag" medication check-ups, and health fairs are only a few of the suggested events included in the promotional kit. More than just helpful hints, the kit supplies pharmacists with patient education materials that can be used as prescription "bag stuffers" to enhance patient counseling, as handouts at health events, and in displays.

"National Pharmacy Week provides phar-

macists with the perfect opportunity to conduct special events or offer new services that show patients and the community-at-large that the pharmacist is a valuable health care resource," said Melanie Privette, APhA's public relations manager. "We understand how busy pharmacists are," added Privette, "so the promotional kit makes planning simple–providing the necessary building blocks to put together successful events and promotions. National Pharmacy Week continues to grow every year, and a major factor has been the popularity of the kit."

In addition to patient information, the kit includes suggestions for possible events, lists of resource materials, publicity tips including how to work with the media, and sample news releases, public service announcements, consumer articles, and a proclamation. Promotional products such as banners, posters, brochures, t-shirts, buttons, balloons, pens, license plate frames, bumper stickers, labels, mugs, squeeze bottles, and tent cards are available for order. In addition, a refrigerator magnet, medication organizer, and dosage spoon can be personalized if ordered 30 days in advance.

To order NCPIE's "Talk About Prescriptions" Month Planning Kit, mail a check or money order for $5.00 to: NCPIE, 666 Eleventh Street, NW, Suite 810-M, Washington, DC, 20001.

APhA's promotional kit is available free of charge to all APhA members by sending the request, along with APhA membership number, to APhA's promotional company, Trexco, at 1251 Gordon Park Road, August, Georgia 30901, or by calling 800-950-7701, ext. 55. The kit also is available to nonmembers by sending a $5 check, payable to Trexco.

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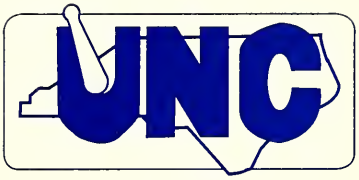
MEDIA CAMPAIGN SPREADS RESULTS OF NEW POLL REGARDING PUBLIC PERCEPTION OF PHARMACISTS

The Coalition of Consumer Access to Pharmaceutical Care (CCAPC) has launched a national medial campaign to communicate the positive findings of a recent poll of Americans' attitudes toward pharmacists. The effort aims to advance the recognition of pharmaceutical care in national health care reform and is timed to coincide with the final crucial months of the legislative debate.

The campaign includes nationwide release of the poll and offers national and local spokespeople to discuss poll results and the value of pharmaceutical care services. Six cities with key legislative representatives have been chosen for additional, highly targeted, media relations efforts. The cities are Houston, TX; Des Moines, IA; Gainesville, FL; San Diego, CA; Nashville, TN; and Minneapolis, MN.

To extend the reach of the media relations campaign, each CCAPC member organization has provided their own members with campaign and survey information and urged members to promote the findings and pharmaceutical care in local media.

According to the poll, most Americans (88%) rely on their pharmacist to answer medication questions, suggest health care cost-saving measures, and most important, to be there when they need help. Americans give high praise for pharmacists' advice—nearly 90% feel that the medication advice pharmacists give actually helps people feel better faster. The poll's telephone survey was conducted in May 1994. It consisted of more than 1,000 interviews and provided a nationally projectable sample of the male and female U.S. adult population.



Glaxo

NCPHA WELCOMES MEDICAL COMMUNICATIONS RESIDENT

The North Carolina Pharmaceutical Association welcomes John Pitts this month to the editorial staff of *The Carolina Journal of Pharmacy*. Pitts comes to the NCPhA through the Residency in Medical Communications sponsored by the University of North Carolina School of Pharmacy with the cooperation of the UNC Hospitals Drug Information Service and the Medical Communications Department of Glaxo Inc. While with the NCPhA, Pitts will help edit and contribute articles to *The Carolina Journal of Pharmacy*, prepare news releases, and participate in association activities.

Pitts, a graduate of the University of Arkansas School of Pharmacy, earned his Ph.D. in Pharmaceutics from the University of North Carolina at Chapel Hill. After becoming interested in medical communications, he worked as a health care communication specialist before beginning the medical communications residency. "I have always appreciated the importance of pharmacists in providing drug information to patients and other health care professionals," says Pitts, "but through this residency I am becoming aware of more and more opportunities for people in our profession to use their communication skills in helping others. Providing drug information to those who need it is probably the most appreciated work that a pharmacist does, and I find this work gratifying."

Prior to coming to the NCPhA, Pitts spent the first three months of the residency with the UNC Hospitals Drug Information Service. At UNC he provided drug information consultations and contributed to the operation of the drug information center, supported the activities of the UNC Hospitals' Pharmacy and Therapeutics committee, contributed to the drug use evaluation efforts of the UNC Hospitals, and developed drug information instructional materials for the UNC College of Pharmacy.

Following his experience with the NCPhA, Pitts will spend eight months with the Medical Communications Department of Glaxo Inc. where he will work with members of clinical research, statistics, regulatory, legal, and marketing while developing manuscripts for publication, technical reports and educational materials.

DRUG INFORMATION RESOURCES FOR NORTH CAROLINA PHARMACISTS

Patient specific drug information provided when and where it is needed is one of the most important (and appreciated) contributions that pharmacists can make to health care. At one time, the primary duty of a pharmacist was to compound and dispense medications, but in the "information age" pharmacists are the best source of answers to drug related questions. In fact, the United States Congress now officially recognizes the special talent of pharmacists to provide drug information. It is now required that pharmacists who accept governmental payment for professional services include patient counseling as a part of the service (OBRA 90).

Pharmacists provide drug information either from their own knowledge and memory or from a review of the biomedical literature. The National Library of Medicine's database, Medline, contains 6 million references from 4000 journals, with a current rate of growth of about 400,000 new entries per year. Newspapers, magazines, computerized electronic bulletin boards, radio, and TV communicate medical/health information to the general public. The fact is, it is not possible to know everything, so it is important that pharmacists use the literature effectively to locate the most current and appropriate information for their patients and fellow health care professionals.

John D. Pitts

I. Types of Literature

The three general literature categories are: primary, secondary, and tertiary. As the name suggests, primary literature is the original literature containing all of the published knowledge of the profession. It consists of the reports of original research and innovations written by the investigators or practicioners themselves. Examples of primary literature include original research articles, case reports, letters to editors, and abstracts. Primary pharmacy literature appears mostly in professional and scientific journals.

Secondary literature consists of the indexing and/or abstracting services that help organize the primary literature into a usable body of information. Examples of secondary literature include *Index Medicus, Medline, IPA (International Pharmaceutical Abstracts)*, and *Current Contents.*

The third category, tertiary literature, includes general reference materials and textbooks. Examples of tertiary literature include: *Goodman and Gilman: The Pharmacological Basis of Therapeutics, Drug Facts and Comparisons,* and *American Hospital Formulary Service - Drug Information (AHFS-DI).* Review articles found in journals and other periodicals are also tertiary literature because they summarize the information found in the original primary literature.

II. Systematically Searching the Literature

Considerations in choosing an information source for a particular question include the urgency of the request, nature of the request, and your own previous knowlege of the subject. Normally, a pharmacist will be-

gin a systematic search with an overview of the information contained in tertiary references. Most pharmacies house a collection of standard references texts appropriate to their area of practice. If an adequate answer is not found in available tertiary references, the pharmacist may visit a local library. North Carolina public and private medical libraries house extensive collections of medical literature, and many have efficient interlibrary loan programs (addresses and telephone numbers for medical libraries in North Carolina are listed in Appendix 1). If the information is not found in tertiary references, the pharmacist will consult secondary, then primary references.

A. Tertiary Literature

Tertiary references are the quickest and easiest method of reviewing the literature, and many excellent textbooks and references are available with specialized bodies of information. Besides the ease of use, tertiary references summarize the literature and offer commentary about it. The major disadvantages of tertiary literature are that (1) textbooks and review articles are not the most current literature, (2) the references are not necessarily accurate and complete, and (3) tertiary literature is subject to the prejudices and biases of writers and editors. A general tertiary reference does not necessarily provide opposing viewpoints to the ones expressed, and it does not offer you the ability to judge the soundness of the original research for yourself, unless you review the primary sources upon which the information is based.

B. Secondary Literature

If you wish to research the literature further, you may search for references in the primary literature by using secondary references, including abstracting services and indexing systems. Although the information you seek may often be obtained directly from abstracting services, extensive reviews of the literature generally end in a review of the primary literature. It should also be remembered that indexing systems review a finite number of journals; thus, using only one referencing system may result in the error of omitting a reference indexed by another system. Just as with tertiary references, there is a lag time before the most current information becomes available, but secondary sources with the shortest lag times include *Current Contents, Carl UnCover,* and *InPharma.* Table 1 lists some examples of common secondary sources.

Benefits of abstracts found in abstracting services include: (1) a more thorough evaluation of the article can be obtained from the abstract than the title alone, (2) the abstract helps in determining whether the article is worth the time needed to review the full article, (3) abstracts may be obtained more quickly than the full article, and (4) abstracts may offer information in the English language about foreign language articles that are difficult to obtain and interpret. However, because of these advantages, people may be tempted to use abstracts instead of primary articles. The dangers of using abstracts in lieu of primary articles are that: (1) abstracts have been shown to contain omissions and errors (Michel, 1988), and (2) abstracts do not contain enough information for the reader to evaluate the study design and methods, or to assess the validity of the research.

C. Primary Literature

The primary literature, including clinical trial reports, case reports, letters to editors, abstracts, and consensus statements, provides the foundation for the tertiary literature. Primary literature contains the most up-to-date information because it has the shortest lag time before publication. Some of the most commonly used pharmacy related references are listed in Table 2. The primary literature can be searched for opposing viewpoints, and is more readily assessed for accuracy, credibility, and limitations when the original data and methods of study are present in the publication.

Table 1: Secondary References

Carl UnCover, published by CARL Systems, Inc., is an electronic database that contains current tables of contents for over 13,000 multidisciplinary journals. Carl UnCover usually publishes the tables of contents before citations appear in Medline.

Current Contents is available as a hard copy or computerized and searchable database. Current Contents publishes the tables of contents of journals in the medical and related literature before citations appear in Medline. Current Contents is one of the most timely secondary sources, and is published weekly.

Index Medicus may be the most well known biomedical indexing source available. Printed issues, published monthly by the National Library of Medicine, index articles, letters, editorials, biographical material, and obituaries from 2,700 primary journals (1966 to present).

Inpharma is a weekly abstracting service for clinical drug literature. Inpharma is available as hard copy, but may also be obtained in a machine readable format for interactive computer searching. Approximately 1,500 journals published internationally are selectively abstracted. Section headings include: adverse reactions and interactions, drug prescribing, research and development, therapy, clinical pharmacology, and recent reviews. New products are also listed.

IPA (International Pharmaceutical Abstracts), published by the American Society of Hospital Pharmacists, includes citations and abstracts from pharmaceutical literature and the related areas of drug information, pharmacy practice, pharmaceutical education, and legal aspects of pharmacy and medications. IPA is available electronically or in a bimonthly journal format (1970 to present).

IDIS (Iowa Drug Information System) references approximately 160 medical journals and is updated monthly. A choice of a CD-ROM index or a microfiche index is available, and the major advantage of IDIS is that it includes the full text of indexed articles on the microfiche (1966 to present).

Medline is the National Library of Medicine's electronic medical database. It indexes articles from 3500 journals included in *Index Medicus* as well as journal references from the *Index to Dental Literature* and *International Nursing Index*. Medline is available to students and faculty on the UNC campus through UNCLE (UNC Literature Exchange). Medline is also available by subscription outside the university on compact disc or as an on-line service (1966 to present; Medline through UNCLE is available 1985 to present).

Reactions, published weekly by Adis International, is a cumulated reference source for adverse drug reaction experiences reported in medical and biomedical journals. Reactions is available in a journal format as well as through on line computer services.

Table 2: Common Pharmacy Journals (Primary References)

Peer-reviewed

A. American Journal of Hospital Pharmacy (Am J Hosp Pharm)
Published by ASHP

B. Clinical Pharmacy (Clin Pharm)
Published by ASHP

C. Pharmacotherapy (Pharmacother)
Published by ACCP

D. Annals of Pharmacotherapy (Ann Pharmacother)
Published by Harvey Whitney Books Co.

E. AACP News
Published by AACP

Not peer reviewed

F. Hospital Pharmacy
Published by J.B. Lippincott Company

G. American Pharmacy
Published by APhA

H. Drug Topics
Published by the Hearst Corporation

I. American Druggist
Published by Medical Economics Publishing Inc.

J. U.S. Pharmacist
Published by Jobson Publishing Co.

Clinical trial reports are one useful form of research article found in the primary literature. These reports evaluate research concerning the efficacy and toxicity of drugs in man.

Properly conducted clinical trials may allow experimental findings in a representative group of people to be generalized to future patients; however, research articles should always be read by pharmacists using a critical eye. The fact that information has been published does not guarantee that it is correct or appropriate to your patients. In an effort to improve the quality of published literature, the most reputable journals subject research articles to a peer review process before publication, but the ultimate responsiblity for literature evaluation falls on the pharmacist who uses it. Appendix 2 is a guide for evaluating research articles.

Letters to the editor are a different primary literature resource and appear as short communications concerning previous research articles, or solutions to everyday problems in pharmacy. Letters to the editor do not necessarily report on research findings, but often provide supporting or opposing commentary on recently published reports.

Abstracts are article summaries normally published with the full journal article, but an abstract may be published alone as a summary of a poster presentation or podium session at a scientific meeting. Consensus statements communicate the position of a group of people about an issue after the group has met to reach a consensus opinion.

III. Alternate Drug and Health Information Resources

Pharmacists not only have the standard printed literature as resources, but can also rely on each other, other health care professionals, and electronic media for drug information. Many of these contacts can be made by direct voice communication using the telephone, but some electronic information is available on-line by computer modem.

A. Poison Control Centers/Drug Information Centers/Drug Companies

Pharmacists and health care professionals are available by telephone at North Carolina drug information centers (Table 3), poison control centers (Table 4) and pharmaceutical manufacturers (Table 5). Drug information centers are not intended to respond to

Table 3: North Carolina Drug Information Centers

Buies Creek
Drug Information Center
Campbell University School of Pharmacy
P.O. Box 1090
Buies Creek, NC 27506
Mon. - Fri. 8:30 AM - 4:30 PM
800-327-5467

Chapel Hill
Drug Information Center
University of North Carolina Hospitals
101 Manning Dr.
Chapel Hill, NC 27514
Mon. - Fri. 8 AM - 5 PM
919-966-2373

Greensboro
Triad Poison and Drug Information Ctr.
Moses H. Cone Memorial Hospital
1200 N. Elm St
Greensboro, NC 27401-1020
7 days/wk - 24 hrs.
910-379-4105

Greenville
Eastern Carolina Drug Information Ctr.
Pitt County Memorial Hospital
PO Box 6028
Greenville, NC 27834
Mon. - Fri. 8 AM - 4:30 PM
919-551-4257

Winston-Salem
Drug Information Service Center
NC Baptist Hospital
Bowman Gray Medical Center
Medical Center Blvd.
Winston-Salem, NC 27103
Mon. - Fri. 8 AM - 5 PM
910-716-2037

Table 4: North CarolinaPoison Control Centers

Asheville
Western North Carolina Poison Control Center
Memorial Mission Hospital
509 Builtmore Ave.
Asheville, NC 28801
704-258-9907
704-255-4490
800-542-4225

Charlotte
Mercy Hospital Poison Control Center
2001 Vail Ave.
Charlotte, NC 28207
(Business) 704-379-5824
(Emergency) 704-379-5827
800-848-6946

Durham
Duke University Regional Poison Control Center
Duke University Medical Center
PO Box 3007
Durham, NC 27710
(Business) 919-684-4438
(Emergency) 800-672-1697

Greensboro
Triad Poison Center
Moses H. Cone Memorial Hospital
1200 N. Elm St.
Greensboro, NC 27401-1020
(Business) 910-379-4108
(Emergency) 910-379-4105
800-722-2222

Hickory
Catawba Memorial Hospital Poison Control Center
810 Fairgrove Church Rd., SE
Hickory, NC 28602
(Business) 704-322-3000
(Emergency) 704-322-6649

emergencies, as are poison control centers, but the staffs of drug information centers have access to a large body of information that may be helpful to pharmacists in non-emergency situations. If an emergency arises, such as ingestion of a poison or toxic drug overdose, poison control centers have ready access to the information needed for an appropriate response. Occasionally, a pharmacist may need to contact the drug manufacturer for specialized information that is not available elsewhere.

The telephone numbers for drug information centers, certified poison control centers, and drug companies can be found in *Drug Topics Red Book*. The telephone numbers for certified poison control centers and many pharmaceutical manufacturers can also be found in *The Physician's Desk Reference*.

B. Community Service Numbers and Telephone Hotlines

The telephone number for many health service agencies that patients may require can be found in the "community service numbers" section near the front of the local telephone book. General headings in this resource may include:

- Alcohol and drug abuse
- Autism
- Blind/visually impaired services
- Child abuse and neglect
- Child and parent resources
- Counseling/support/mental health
- Deaf/hard of hearing resources and TDD numbers
- Disabled persons resources
- Elderly services
- Emergency/first aid/law enforcement
- Health
- Mental Retardation/Developmental Disabilities
- Pregnancy and Child Bearing

Included under each main heading is the name and telephone number of several organizations providing community services. Some other drug information telephone hotlines are listed in Table 6. A more comprehensive list of health self-help telephone numbers can be found in the Encyclopedia of Medicine, published by the American Medical Association.

C. Electronic Databases

i. The Internet

The Internet, commonly known as the "information super-highway," is the largest computer network in the world. No one knows how large the Internet really is because the Internet is actually a collection of separately run smaller networks with no single place of registration. It allows information exchange between corporate networks like AT&T, Digital Equipment, and Hewlitt-Packard, as well as between individuals. The Internet also includes discussion groups that allow people with common interests, such as health care, to come together electronically from around the world.

An advantage of the Internet is that there is almost no lag time for information distribution; however, there may be no control over the reliability of that information either. Cold fusion, purportedly a major discovery for producing inexpensive energy, originally appeared in the Internet. This news appeared in many major publications, such as *Time Magazine* before being shown to be invalid research.

Primary, secondary, and tertiary literature is available through the Internet.

ii. Compuserve and Prodigy

Electronic bulletin boards and databases are available to anyone who is willing to pay the subscription fee. Two popular bulletin boards are Compuserve and Prodigy. Prodigy has two forums dealing with health: Health News and Health Topics. Compuserve has several health related forums which include: Cancer Forum, AIDS Forum, Diabetes Forum, Health Net, and Health Data Base. These forums provide

news and information about specific health news and concerns, and often allow for individual questions and interchange among members of the forum. Other bulletin boards of interest include: PharmNet, offered by ASHP and accessible for the cost of a telephone call; FDA BBS, offered free of charge by the Food and Drug Administration; and FIX (Formulary Information Exchange), available for a subscription fee.

iii. Secondary Electronic References

Several of the secondary references are available in electronic formats, including *Medline, Carl UnCover, IPA (International Pharmaceutical Abstracts), Current Contents,* and *Reactions* (See Table 1).

iv. Tertiary Electronic References

Some tertiary references are also available electronically, including *Micromedex-DrugDex, AHFS-DI,* and *Clinical Pharmacology.*

1. *Micromedex-DrugDex*, published by the Micromedex editorial board, is a computer searchable full-text information system intended for use by health care professionals

Table 5: Pharmaceutical Manufacturers in North Carolina

Abbott Laboratories Inc.
P.O. Box 2226
Rocky Mount, NC 27801
919-977-5333

AG Mark Inc.
P.O. Box 127
Teachey, NC 28464
910-285-2144

Ajinomoto USA
4020 Ajinomoto Drive
Raleigh, NC 27610
919-231-0100

Alba Wadensian Inc.
201 St. Germain Ave. SW
Valdese, NC 28890
704-874-2191

Allen & Hanburys
Division of Glaxo, Inc.
Five Moore Drive
Research Triangle Park, NC 27709
919-248-2100

Astyptodyne Chemical Co
2128 Echo Lane
Wilmington, NC 28403
910-763-5764

Bausch and Lombe Inc.
P.O. Box 1088
Williamston, NC 27892
919-792-6333

Baxter Healthcare Corp.
P.O. Box 1390
Marion, NC 28752
704-756-4151

Bayer-Miles Laboratories Inc.
P.O. Box 507
Clayton, NC 27520
919-553-5011

Bristol Meyers Products Co.
1331 W. Durham Road
Morrisville, NC 27560
919-467-3500

Burroughs Wellcome Co.
3030 Cornwallis Dr.
Research Triangle Park, NC 27709
919-248-3000

Cameron Laboratories Inc.
205 S. Pine
Wilson, NC 27893
919-237-1086

Table 5: Pharmaceutical Manufacturers in North Carolina (Continued).

Carolina Medical Products Co.
PO Box 147
Farmville, NC 27828
800-227-6637

C-B Corporation
HWY 49 W.
Harrisburg, NC 28075
704-455-2165

Cerenex Pharmaceuticals
Division of Glaxo, Inc.
Five Moore Drive
Research Triangle Park, NC 27709
919-248-2100

Charlotte Pharmaceuticals Inc.
3241 Woodpark Blvd.
Charlotte, NC 28206
704-596-9440

Ciba-Geigy Corporation
410 S Swing Road
Greensboro, NC 27409
910-632-6000

Coral Pharmaceutical, Inc.
Windsor Industrial Park
146 County Farm Road
Windsor, NC 27983
919-794-5200

Daly-Herring Co.
Neuse Road
Kinston, NC 28501
919-527-8001

Econo Med Pharm. Inc.
4305 Sartin Road
Burlington, NC 27217
800-327-6007

Environmental Diagnostic
2990 Anthony Road
Burlington, NC 27215
910-226-6311

Finetex Inc.
P.O. Box 164
Spencer, NC 28159
704-633-8028

Glaxo Dermatology
Division of Glaxo, Inc.
Five Moore Drive
Research Triangle Park, NC 27709
919-248-2100

Glaxo Pharmaceuticals
Division of Glaxo, Inc.
Five Moore Drive
Research Triangle Park, NC 27709
919-248-2100

Goody's Mfg. Corp.
436 Salt Street
PO Box 407
Winston-Salem, NC 27108
910-723-1831

Granutec Inc.
Route 1
Wilson, NC 27893
919-291-9100

Greer Laboratories Inc
P.O. Box 800
Lenoir, NC 28645
704-754-5327

Harmony Laboratories, Inc.
PO Box 39
1109 South Main Street
Landis, NC 28023
704-857-0707

Kabi Vitrum, Inc.
P.O. Box 597
Clayton, NC 27520
919-553-3831

Table 5: Pharmaceutical Manufacturers in North Carolina (Continued).

Mallinckrodt Inc.
P.O. Box 61038
Raleigh, NC 27661
919-878-2800

Mayrand Pharmaceuticals
PO Box 10518
Winston-Salem, NC 27108
910-723-1831

Medi-Plex Pharmaceuticals, Inc.
3714 Alliance Drive
Suite 302
Greensboro, NC 27407

Merck & Company
Route 2 Box 558
Wilson, NC 27419
919-243-2011

Medicopharma, Inc.
3241 Woodpark Boulevard
Charlotte, NC 28206
704-596-0516

Morflex Chemical Co. Inc.
2110 High Point Road
Greensboro, NC 27403
910-292-1781

Moffitt, C.J. Medicine Co. Inc.
103 Wittier Ave
High Point, NC 27262
910-886-4964

Richardson Vicks USA
P.O. Box 18647
Greensboro, NC 27149
910-292-2420

Rugby Laboratories
P.O. Box 808
Monroe, NC 28110
704-289-5531

Seneca Pharmaceuticals
PO Box 363
Raleigh, NC 27611
919-783-6936

Squibb, ER & Sons
P.O. Box 1000
Kenly, NC 27542
919-284-5131

Stanback Company
PO Box 1669
Salisbury, NC 28145
704-633-9231

Takeda Chemical Industry LTD
P.O. Box 2577
Wilmington, NC 28402
910-762-8666

Tycos Self Check
Div. Sybron/Taylor
Glenn Bridge Road
Arden, NC 28704

Vikon Chemical Co. Inc.
P.O. Box 1520
Burlington, NC 27215
910-226-6331

Youngs Drug Products Corp.
6500 North I-85
Charlotte, NC 28213
704-596-1522

Zema Corp.
PO Box 12803
Research Triangle Park, NC 27709
919-851-9494

Table 6: Telephone Hotlines

Government

ODPHP National Health Information Center
P.O. Box 1133
Washington, DC 20013-1133
800-336-4797

Fee for Service Consumer Hotline

Ask The Pharmacist, Inc.
P.O. Box 4934
Chapel Hill, NC 27514
Business phone: 919-967-8300
Consumer drug inquiries:
900-4200-ASK, $1.95/min

Call Our Pharmacist
800-522-5225
900-90-DRUGS, $1.99/min.

Contract Drug Information Providers, Telephone services

Biospherics, Inc.
12051 Indian Creek Court
Beltsville, MD 20705
Business phone 301-419-3900

who prescribe, order, dispense, or administer medications. It contains information about FDA approved drugs, over-the-counter medications, investigational agents, and preparations not available in the United States. Other services offered by Micromedex include *Identidex* and *Poisondex* which include further information about medications and poisons.

2. *AHFS - DI*, published by the American Society of Hospital Pharmacists, is a computerized searchable full-text information system intended for use by health care professionals. It contains detailed medication monographs covering information about FDA approved uses of medications as well as generally accepted therapeutic uses.

3. *Clinical Pharmacology*, published by Gold Standard Multimedia, is a searchable full-text database containing drug information on approximately 600 medicinal agents. Features of *Clinical Pharmacology* include drug information for health care professionals as well as for patients. *Clinical Pharmacology* can also interface with patient medical histories and charts to help monitor patient profiles.

Conclusion

As drug experts, pharmacists provide the public with information about medications. Familiarity with the resources for finding the answers to drug inquiries is increasingly important in light of the current growth in the amount of medical information available.

References

1. American Medical Association, Encyclopedia of Medicine. CB Clayman, ed. Random House, NY. pp. 1090-1095.
2. Arndt KA (1992) Information excess in medicine. Overview, relevance to dermatology, and strategies for coping. Arch Dermatol 128:1249-56
3. George D. Halls' Directory of North Carolina Manufacturers. 1992-1993. George D. Hall, Co., p. P-13.
4. Guidelines for searching databases. (1994) Health Sciences Library, University of North Carolina at Chapel Hill, Chapel Hill, NC.
5. Levine JR and Baroudi C (1993) The Internet for Dummies. IDG Books Worldwide, Inc., Boston MA., pp. 7-15.
6. Meade V (1991) Patient drug information hotlines multiply. American Pharmacy NS31:29-31
7. Michel DJ (1988) Content and accuracy of abstracting services: Clinical Perspec-

tive. Hosp Formul 23:596-607.
8. North Carolina Business Directory 1992-1993. American Business Directories, Omaha, NB., p. 1214.
9. Omnibus Budget Reconciliation Act of 1990. Pub L No. 101-508, 104 Stat 1388.
10. Slawson DC, Shaughnessy AF, and Bennett JH (1994) Becoming a medical information master: Feeling good about not knowing everything. J Fam Pract, 38:505-513.
11. Smith GH (1994) Public access to drug information in the United States. Am J Pharm Ed 58:98-103.
12. Watanabe A and Conner C (1978) Principles of Drug Information Services. Literature Search. Drug Intelligence Publications, Inc. Hamilton, IL. pp. 55-58.
13. Zellmer WA (1994) The Literature of Pharmacy. Handbook of Institutional Pharmacy Practice, 3rd edition. American Society of Hosptial Pharmacists, Bethesda, MD. TR Brown, ed. Chapter 29 pp. 307-316.

Appendix 1: Medical Libraries in North Carolina

Apex
American Sterilizer Co.
Research Library AMSCO Scientific
1002 Lufkin Rd, 27502
919-387-6151
Info Spec: Janis Ruben

Asheville
Department of Veterans Affairs
Medical Center Library
Riceville & Tunnel Rds, 28805
704-299-2525
Librn: Jane Lambremont

Mountain Area Health Education Center
Information and Media Services
501 Biltmore Ave 28801-4686
704-257-4444
Dir: Patricia L. Thibodeau

Burlington
Alamance Health Services Inc.
Medical Library
Alamance Memorial Hospital
730 Hermitage Rd
PO Box 202, 27216
910-570-5027
Librn: Tom Dodd

Butner
John Umstead Hospital
Learning Resource Center
1003 12th St, 27509
919-575-7259
Librn: Brenda M. Ellis

Camp Lejeune
Medical Library
Naval Hospital, 28542-5008
910-451-4076
Librn Tech: Gladys Dixon

Chapel Hill
Medical Examiner
Forensic Library, 27599-7580
919-966-2253
Assoc Chief Med Examiner
Deborah Radisch

University of North Carolina
at Chapel Hill
Health Sciences Library
Campus Box 7585, 27599-7585
919-966-2111
Dir: Carol G. Jenkins

Charlotte
Mecklenburg County Health
Department Library
249 Billingsley Rd, 28211
704-336-3354
Heath Educ: Gary Black

Medical Library of Mecklenburg Co.
Bryant L. Galusha Learning Resource
Center of Charlotte AHEC
1000 Blythe Blvd.
PO Box 32861, 28232-2861
704-355-3129
Dir of Libr Serv:
Constance M. Wallace

Appendix 1: Medical Libraries in North Carolina (Continued).

Mercy School of Nursing Library
1921 Vail Ave, 28207
704-379-5845
Librn: Roseanne Gilbert

Presbyterian Hospital
Learning Resource Center
200 Hawthorne Lane
PO Box 33539, 28233-3549
704-384-4258
Librn: Mary Wallace Berry

Concord
Cabarrus Memorial Hospital Library
920 Church St N, 28025
704-783-1726
Librn: Steve Owen

Durham
Department of Veterans Affairs
Library Service
508 Fulton St, 27705
919-286-6859
Chief Libr Serv: Jeff Kager

Duke University
Medical Center Library
Seeley G. Mudd Bldg.
PO Box 3702, 27710-3702
919-684-2092
Dir: Susan J. Feinglos

Durham Regional Hospital
Medical Library
3643 Roxboro St, 27704-2763
919-470-6251
Dir Libr Serv: Mary G. Parker

Durham Regional Hospital
Watts Schol of Nursing Library
3643 N Roxboro St, 27704
919-470-7346
Librn: Priscilla W. Hoover

Institute for Parapsychology
402 N Buchanan
College Station, PO Box 6847, 27708
919-688-8241
Librn: Iris Oliver

Fayetteville
Cape Fear Valley Medical Center
Library Services
Owen Dr, PO Box 2000, 28302-2000
910-323-6601
Dir: Patricia Hammond

Department of Veterans Affairs
Medical Center Library Service
2300 Ramsey St, 28301
910-822-7072
Librn: Pamela A. Jackson

Fayetteville Area Health Education
Center Library
1601 Owen Dr, 28304
910-323-4007
Dir: Barbara Wright

Fort Bragg
Womack Army Medical Center
Library
28307-5000
910-432-1819
Librn: Joan Hathaway

Greensboro
Moses H. Cone Memorial Hospital
Medical Library
1200 N. Elm St., 27420
910-574-7484
Librn: Leslie Mackler

Wesley Long Community Hospital
Hospital Library
501 N Elam Ave, 27403
910-854-6299

Greenville
East Carolina University
Health Science Library
Brody Medical Sciences
Moye Blvd, 27858-4354
919-551-2212
Dir: Jo Ann Bell

Appendix 1: Medical Libraries in North Carolina (Continued).

Lumberton
Southeastern General Hospital Library
300 W 27th St
PO Box 1408, 28358-1408
910-671-5046
Librn: Ida Griffin

Raleigh
Dorothea Dix Hospital
Walter A. Sikes Learning Resource Center
820 S Boylan Ave, 27611
919-733-5111
Dir: Spanola M. Eubanks

Rex Hospital Library
4420 Lake Boone Trail, 27607
919-312-624
Librn: Barbara Zimmerman

State of North Carolina Department of Environment, Health & Natural 4465
919-250-8529
Dir: Karen Grandage

Reidsville
Annie Penn Memorial Hospital
Medical Library
618 S. Main St, 27320
910-634-1010
Librn: Sandra King

Salisbury
Department of Veterans Affairs
Medical Center Library
1601 Brenner Ave, 28144
704-638-9000
Chief Librn: Nancy J. Smith

Northwest AHEC Library
Rowan Memorial Hospital
612 Mocksville Ave, 28144
704-638-1069
Dir: Connie Schardt

Wilmington
Robert M. Fales
Health Sciences Library
2131 S. 17th St, 28402-9989
910-343-0161
Dir: Donna Flake

Wilson
Wilson Memorial Hospital
Learning Center Library
1705 S. Tarboro St, 27893
919-399-8253
Coordr: Tosa Edwards

Winston-Salem
Forsyth Memorial Hospital
John C. Whitaker Library
3333 Silas Creek Pkwy, 27103-3090
910-718-5995
Librn: Margaret L. Cobb

Forsyth Technical Community College Library
Allied Health
1990 Beach St, 27103
910-723-0371
LTA: Polly King

Forsyth Technical Community College Library
Nursing
1990 Beach St, 27103
910-723-0371
LTA: Jennifer Springs

Wake Forest University
Coy C. Carpenter Library
Bowman Gray School of Medicine
Medical Center Blvd., 27157-1069
910-716-4691
Dir: Michael D. Sprinkle

Appendix 2: Checklist for Evaluating a Scientific Study

General Considerations

1. Does the article appear in a reputable journal? _____
2. Do the investigators have an adequate professional background or research experience? _____
3. Was the research funded in a manner that might introduce bias? _____

Title/Abstract

4. Did the title properly reflect the contents of the article? _____
5. Did the absract clearly explain the study? _____

Introduction

6. Was the literature review/background adequate? _____
7. Were the objectives and purpose of the study well defined? _____

Subjects

8. Does the sample adequately represent the population of interest? _____
9. Were the subjects chosen by appropriate means? _____

Controls

10. Were adequate controls established? _____
12. Was the assignment of patients to control/experimental groups appropriate (randomized)? _____
13. Was blinding adequate? _____

Treatments/Study Design

14. Was the study prospective or retrospective? _____
15. Was the treatment appropriate? _____
16. Could other concurrent treatments affect the treatment of interest? _____

Measurements

17. Did the measurement adequately measure all important variables? _____
18. Were widely accepted measurements used? _____
19. Are the measurements known to be reproducible? _____
20. Are the measurements known to be accurate? _____

Results

21. Were all measured outcomes (expected/unexpected) reported? _____
22. Were all the patients who entered the study accounted for in the results? _____
23. Was the information presented properly in graphs or tables? _____
24. Were descriptive statistics (e.g. mean, standard deviation, mode) used correctly? _____
25. Were comparisons between groups appropriate? _____

Conclusions

26. Were conclusions consistent with the data reported? _____
27. Were the results considered clinically significant? _____
28. Were the conclusions consistent with the study objectives? _____
29. Were the conclusions consistent with existing knowlege? _____

FITTING THE PIECES OF THE PUZZLE

Finding the Right Match in Hiring New Employee Pharmacists

The cost of hiring and then dismissing a new employee pharmacist because of some unforeseen problem can reach into the tens of thousands of dollars. With monetary pressures in pharmacy increasing, finding the right match when hiring new pharmacists has magnified importance.

Finding the right employer-employee match is one of the more difficult tasks a pharmacy manager or owner will have to perform. Unlike dispensing a prescription, monitoring drug therapy, or interpreting test results, choosing the right pharmacist is not a science. There are, however, some things an employer can do to reduce the chances of choosing the wrong candidate when filling an open position.

Sorting the Pieces

Before placing a "help wanted" advertisement, have a concise job description that includes a clear concept of your expectations and a list of duties and responsibilities that are to be assumed by the new employee. This job description will help you focus on the important traits for which you are looking and gives you a set of criteria amongst which to compare all candidates.

A prospective employee's resume will be the basis for a background search, but should be looked at only as a guide. The first task is to identify any obvious factual errors in the resume. For instance, the date of licensure for a candidate could not possibly come in 1986 when he or she claims that the first pharmacy degree was received in 1987. Additionally, it is commonly known that the University of Chicago is not in New York City. If these kinds of mistakes appear, there is a good chance that this candidate is not being completely truthful.

Carefully look for inconsistencies or breaks in time between periods of employment. Problematic areas can be questioned in a later interview. It is possible that a break of a few months may be for valid reasons, but it may also point to much deeper problems, including lack of licensing, criminal activity or substance abuse.

Along the same lines, look to see if your prospect jumps from job to job. If he or she does, be careful. There may be legitimate reasons for this kind of work history, however, a new employer may be no more than a short-term stop on this candidate's career merry-go-round.

With regard to education and licensing, checking is relatively easy. Candidates either do or do not have the education and licensing they claim to have. Both licensure status and education can easily be checked through state licensing agencies, and colleges of pharmacy.

Employers should also look for substance in resumes. It is very common for "resume bloat" to occur as potential employees strain to impress employers. Recent college graduates should not have five page resumes. Though this may be appropriate in more accomplished and more experienced prospects. Closely reading between the lines will allow employers to separate substance from filler.

After noting obvious flaws, a more thorough check of the factual information is to be done. Calling and checking work references is just the first step. Information received from past employers may be no more than a confirmation that the person worked there between two dates because employers, fearing law suits, limit their comments.

This is where a pharmacist's network of professional contacts becomes invaluable. Many pharmacists are involved in national, state, or local pharmacy organizations as well as civic groups. When faced with road blocks in checking a resume, employers could turn to those resources to get information about the quality of a candidate's par-

ticular work experience that may not be directly available from the previous or current employer.

No matter who you talk to, the last question to ask is whether that person would consider hiring or rehiring this candidate. This answer will give you an indication of the candidate's previous performance.

Other readily accessible information is a candidate's driving record, credit status, and any criminal record or court ordered mental health treatment; all of which give insight into the person whom you are contemplating hiring.

Piecing it Together

Besides the objective criteria, a successful employer-employee relationship is based on an amalgam of such hard to define factors as personality, professional philosophy, and attitude. A pharmacist that may fit perfectly in one setting, may be a complete failure in another. This is generally neither the fault of the employer, nor of the employee, but it does illustrate the importance employers should place on factors beyond the resume.

These are all factors to examine during the interview. It is possible to conduct interviews via telephone, but it is highly preferential to conduct interviews in person because so much more information can be gathered from non-verbal communication.

Whether conducting a phone or personal interview, listen for the quality of the voice. Is there enthusiasm and professionalism? Is the person confident of his or her answers? Ask yourself if this is the person you want interacting with your patients. With an increased emphasis on counseling skills, does this person have the communication skills necessary to carry out these responsibilities successfully?

During the interview encourage candidates to share their professional expectations: Where they see themselves in one year? In five years? Even the greatest candidates will not be a good match if their expectations for the future do not fit with those of the employer.

In personal interviews, note the candidate's body language. Are candidates casual or formal in their dress and speech? Will this attitude match with those of the other employees with whom they will work? Do they match yours?

Consider doing drug screening for potential new employees. Given the professional responsibility and subsequent liability, contracting out with a local medical laboratory is a bargain. Today, in our professional world, this is an accepted practice.

Fitting the Last Piece

When a decision has been made to offer a position to a chosen candidate, a number of factors will go into whether the offer will be accepted. Contrary to popular opinion, the level of salary is not the most important consideration in whether a candidate will accept a job. Although, to attract a number of qualified candidates from which to choose, a competitive salary should be offered.

In study after study, the most significant factors in whether or not a candidate accepted a position were: where candidates believe they can best apply their expertise; where they will continue to learn; and where their efforts will be most appreciated. More often, a pharmacist will look at the appeal of the facility and the benefits offered as the top factors in making a decision. For instance, if pharmacists have a particular interest in compounding, hypertension or diabetes, they are more likely to choose a facility that would allow them to use their specialized interests and knowledge.

By finding a compatible match, both employer and employee enter into a fulfilling professional relationship that can last for years.

Therese Kirklys is the founder and president of Pharmstaff, Ltd., a national pharmacy temporary staffing service with corporate offices in Chicago, Illinois. Since founding the service in 1982, Ms. Kirklys has gained experience recruiting and placing pharmacists in a variety of practice settings from Pharmstaff's database of over 20,000 registered pharmacists.

CORRESPONDENCE COURSE

BLOOD GLUCOSE MONITORING AT HOME

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, R.Ph., Pharm.D.
Professor of Clinical Pharmacy
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to discuss the benefits of monitoring blood glucose concentrations and present information to convey to patients about its pros and cons.

Objectives

At the conclusion of this lesson, successful participants should be able to:

1. identify terminology that pertains to home monitoring of blood glucose levels;
2. choose advantages and disadvantages of testing blood rather than urine for glucose;
3. select the methodology to test blood for glucose; and,
4. demonstrate knowledge of how to counsel patients correctly on monitoring blood glucose concentrations.

The relationship between blood glucose levels and development of complications of diabetes is well known. If blood glucose values are maintained near normal, many of the disease's devastating complications can be minimized.

Home blood glucose testing products provide quantitative readings. These testing products are easy to use and more reliable than urine testing products. Their accuracy requires that diabetic patients follow directions closely.

Blood Glucose Testing Products

Sales of blood glucose monitoring products, including strips (Table 1), meters and related supplies (Table 2) are expected to grow by as much as 15 to 20 percent a year

Table 1
Testing Strips for Visual Reading of Blood Glucose Levels

Product	Manufacturer
Chemstrip bG	Boehringer Mannheim
Dextrostix	Miles Diagnostics
Diascan	Home Diagnostics
Glucostix	Miles Diagnostics

is that during periods of hyperglycemia, glucose freely enters cells that do not need insulin for transport, including the kidney, neurons, central nervous system, liver, retina, and the crystalline lens. It is converted within these cells to a number of metabolites including sorbitol.

When present in excessive amounts, sorbitol changes the osmotic balance and pulls excessive fluid into these cells. The resulting increased localized edema can, over time, destroy the cells. This, then, can lead to the long-term complicationsof diabetes including kidney damage, neuropathy, retinal degradation, etc. Cataract formation occurs when sorbitol precipitates out in the crystalline lens and causes opacities. It is believed that controlling hyperglycemia before it occurs, and quickly reversing it when it does happen, can reduce many of the long-term problems associated with diabetes.

Another advantage of SMBG is that blood testing is not affected adversely by the presence of other chemicals as occurs with urine testing. Reducing agents, oxidizing agents and enzyme inhibitors can cause false-positive and false-negative urine test results.

While visually-read test strips are still popular, and give a truer assessment of the patient's condition than urine glucose testing methods, they are also less precise than electronic blood glucose meters. Meters are advised for anyone who needs accurate, precise values to adjust insulin dosage, and for visually-impaired or color-blind persons.

The Diabetes Control and Complications Trial

The Diabetes Control and Complications Trial (DCCT) was a landmark multicenter trial designed to test whether the complications of diabetes mellitus correlate with the extent of elevation of the plasma glucose concentration. Two groups of diabetic patients were followed for a minimum of seven years. One group was treated conventionally (goal: normalization of blood glucose; called the intensive treatment group). Over the study period (which ended in 1993), there was an approximate 60 percent reduction in risk between the intensive treatment group and the standard treatment group in diabetic retinopathy, nephropathy, and neuropathy. The benefit of intensive therapy resulted in a delay in onset and major slowing of progression of these three complications. Finally, the benefits of intensive therapy were seen in all categories of subjects regardless of age, sex, or duration of diabetes.

Advantages of Testing Blood Rather Than Urine

The advantages of testing for glucose in blood samples, rather than urine, are well documented (Table 3).

Glucose oxidase-based reagent strips and blood glucose meters have been evaluated for user appeal. Most diabetic patients surveyed indicated they would rather prick their finger for blood than obtain and test for glucose in a urine sample. The majority also develop greater motivation and control with blood testing. Knowing how and when their glucose concentration fluctuates in response to various foods and exercise helps diabetic patients comply with their therapeutic regimens.

Some major problems with urine testing for blood glucose are that it does not accurately reflect how treatment should be changed and provides no information of glucose fluctuations that occur at concentrations below the renal threshold value. Urine tests are also unreliable if an individual's renal threshold for glucose is higher or lower than normal clinical values. Many diabetic patients become anxious when their urine tests do not detect sugar.

Procedure for Drawing Blood and Using the Testing Products

To test a blood sample, a large drop must be drawn. Excellent sources include the ear lobe, heel of the foot, and finger. Most persons prefer the latter because it is easier to work with. If the area is clean, it is not necessary to swab it with alcohol first. If alcohol is used, it must be allowed to evaporate completely before puncturing the skin.

The side of the finger is the best area to

Table 2
Representative Blood Sampling Devices

Device	Manufacturer	Features
Autoclix	Boehringer Mannheim	Finger pressure activated. Can vary depth of penetration.
Autolance	Becton-Dickinson	Finger pressure activated.
Auto-Lancet	Palco Labs	Guard screws to unit.
Dialet	Home Diagnostics	Pen-shaped; discharge button is at lower end of device so it can be held like a pen.
Glucolet	Miles Diagnostics	Pen-shaped; discharge button is at top of pen.
Hemalet	Orange Medical	Pen-shaped.
Lancing Device	MediSense	Pen-shaped.
Monojector	Monojet	Pen-shaped.
Penlet	LifeScan	Pen-shaped; clear guard.
Safe T-Lance	Boehringer Mannheim	Pen-shaped.

for the next few years.

OTC blood glucose testing products consist of strips with a test area that is impregnated with glucose oxidase, and an indicator dye. When a drop of capillary blood is applied to the strip, the enzyme produces a characteristic color change that corresponds quantitatively to the concentration of glucose. The color is read visually by comparing it to a chart on the package label, and glucose concentration is interpreted from this. Some products allow the user to place the strips in a meter for electronic recording of glucose values.

The Consensus Development Conference on Self-Monitoring of Blood Glucose (SMBG) in 1986 concluded that "...many patients who use self-monitoring of blood glucose report considerable satisfaction from more active participation in their own treatment programs." The report continued, that many diabetic patients also "express a gratifying sense of enhanced control over their treatment, a feeling that has been conspicuously absent in previous treatment programs." Properly performed, blood glucose test results are accurate. Results with home testing products are similar to those obtained in clinical laboratories.

The American Diabetes Association states that SMBG is strongly recommended for persons receiving intensive insulin therapy, women who are pregnant or planning pregnancy, and persons prone to hypoglycemia who may not experience usual warning symptoms. It also stated that SMBG should be encouraged for routine management of diabetic patients who require insulin, persons with unusually high or low renal glucose thresholds or unusual insulin resistant states, and any person with diabetes who is motivated to strive for improved control.

Self-Monitoring of Blood Glucose

Just as insulin therapy has improved greatly in recent years, SMBG has become the accepted method for monitoring diabetes at home and adjusting insulin dosage. Controlling diabetes by monitoring glucose in blood is more sound therapeutically than using urine. A major reason is that blood glucose signifies what the current glycemic situation is rather than after the fact as with urine, which may have collected in the bladder for hours before testing. Therefore, the diabetic patient can determine his metabolic situation more accurately, calculate an insulin dose, and adjust caloric intake.

SMBG also reduces the length of time of hyperglycemia between urine voiding, and decreases long-term damage that it causes. To review, one of the problems with diabetes

Table 3
Advantages and Disadvantages of Testing Blood for Glucose

Advantages

- Avoids problem of handling urine, does not require privacy
- Requires less time than double-voided urine sample
- Tests more accurately; results are quantitative instead of semi-quantitative, as with urine testing
- Detects blood glucose concentrations at levels below the renal threshold value
- Confirms hypoglycemia reactions immediately
- Provides knowledge of blood glucose fluctuations in response to normal daily activities
- Defines therapeutic goals; permits ongoing assessment of disease
- Increases patient's knowledge about his disease and compliance with treatment; motivates patients to become more involved
- Allows physician to alter treatment type or frequency without hospitalization of patient

Disadvantages

- May require considerable time to educate on correct technique
- Must puncture the skin; disagreeable to some patients
- Cannot measure blood ketone levels
- Significant initial expense of meter plus consumable supplies
- Patient may become preoccupied with the disease

prick because it is easier to penetrate, there are fewer nerve endings there so pain is minimized, and there is a greater blood supply. Some people rotate finger sites while others continue to use the same general area until a callus forms. To facilitate drawing blood, the area can be warmed with water first. Some people benefit by swinging the arm in a circular fashion to increase the supply of blood, or simply letting the arm hang downward for a minute before pricking the finger.

The chemically treated pad on the test strip should be covered completely with the blood sample. Depending on the particular product, after the proper time interval, the strip is dabbed dry (dry-wipe), or rinsed with water (wet-wash) then dabbed dry. Again, depending on the product, the strip is read immediately or after several seconds. This can be achieved by visually comparing the color of the strip to the color sample blocks supplied with the testing kit, or the strips can be read with a meter.

Blood Glucose Meters

There are numerous meters, each having advantages and disadvantages. They differ in internal mechanisms, size, weight, technique difficulty, ease of calibration, and cost, but most "first generation" meters have a similar mechanism. This includes a port for the reagent strip and light source directed toward it. The units are first calibrated to assure they are working properly. Then the unit is set to accept the test strip from the specific container the patient is using. While products differ, most print a code number on the package label and the patient sets the meter to that code number before running a blood test.

Blood glucose meters contain a detector to measure the light reflected by the color change that takes place on the test strip. When glucose in serum comes in contact with glucose oxidase in the reagent pad on the strip, a chemical reaction leads to a color change. The light reflection detector senses this and sends an impulse to a microcomputer which converts the color

change to a blood glucose value which is displayed on a digital screen in milligrams per deciliter (mg/dL).

The foremost concern of the diabetic patient at the point of purchase may be the cost of the meter. Certainly this is a factor, but it is far more important that the unit be easy to use, accurate, and precise. If the meter is hard to use, patients may not measure their blood glucose values as often as they have been told, or make inaccurate readings because they are not using the unit correctly. If the diabetic patient cannot properly manipulate an inexpensive unit, he should be instructed to buy a unit he understands how to use, even if it is more expensive. The per-test cost of the more expensive meters is negligible when applied to the total life of the unit.

While all meters have a system for calibrating the unit to assure it is working properly, it should be kept in mind that insuring proper meter function does not prevent errors due to incorrect technique. Diabetic patients must have the dexterity, motivation and ability to begin the testing procedure correctly, pay attention to and comply with the signal unit gives them on how to properly time and draw their blood sample, turn on the meter, wipe the blood off the test strip after the glucose/enzyme/dye reaction has taken place, and place the strip into the meter for reading.

When diabetic patients test at home unsupervised, they should use caution in altering their therapy based on only one test result if their intuition and symptoms disagree with the results shown on the meter. More often than not, when the meter reading and the patient's feelings about what is going on inside the body differ, the individual's feelings may be more accurate than the meter.

Second Generation Blood Glucose Monitors

Problems with the first-generation meters led to a request by the medical and diabetic communities to the industry to improve on the meters, mainly by eliminating user error. Newer meters are called second generation because they eliminate most of the human-caused errors and problems in performing the test.

Among the advantages of second generation meters is that the volume of blood placed on the test strip should not affect the quality of the test result significantly, and, if it is insufficient, the meter should inform the user. Protection should be given against over- and under-timing the test. This is best accomplished by having the meter automatically begin the test timing sequence, read the result after the proper time interval, and present the value to the user. The need for the patient to wipe off the blood from the test strip should be eliminated. There is documentation of inaccurate test results because patients wiped off the blood too hard and took the reagent with it, did not wipe off the blood hard enough and left some on the test pad, blotted the blood rather than wiped it, used a paper towel instead of a cotton pad, wiped the blood off too soon, waited too long to wipe the blood off, etc. Second generation meters eliminate the above problems and result in more accurate and consistent test results.

A professional development program made possible by an educational grant from

SEARLE

Advising Diabetic Patients on the Proper Use of Blood Glucose Testing Products

Diabetic patients differ from persons with many other diseases in that they assume significant responsibility for their own treatment. They achieve this by assessing their condition, adjusting their medication dosage, and administering their insulin injections. For other diseases, these tasks are traditionally performed by health care

professionals.

Diabetic patients must be motivated to perform blood tests as often as prescribed and in the correct manner. They must understand the program objectives, and comply with all aspects of testing. A diabetic patient's control, which is achieved with blood or urine testing, may deteriorate over time because motivation decreases. This can be avoided by showing interest in the patients' needs, and checking with them from time to time to see how they are doing.

The frequency of blood glucose determinations depends on the physician's instructions and the individual's ability to perform the tests. The following weekly schedule has been recommended for long-term diabetic patient control. One fasting and one other blood glucose measurement is obtained on each of six days. A full profile consisting of determinations in the fasting state, before and after each meal, and one assessment during the night, is obtained on the seventh day.

The major source of testing error is inaccurate timing between application of a blood sample and reading results. Another source is failure to cover the testing surface adequately with blood. A third source of error is interference of test results by other drugs the patient is taking concurrently. Clinical trials to test the influence of drugs on blood glucose measurement have not yet been conducted, but *in vitro* examination revealed that acetaminophen, aspirin, and ascorbic acid interfered with home glucose monitoring systems.

Errors in reading blood test results due to improper techniques must be tempered by comparing reports of studies that show errors in urine testing. One revealing investigation found that up to two-thirds of patients misuse Clinitest tablets. At best, urine testing results indicate only probable blood glucose values which may be inaccurate.

CORRESPONDENCE COURSE QUIZ

Blood Glucose Monitoring at Home

1. The enzyme that causes the indicator dye to change color on blood glucose test strips is glucose:

a. anhydrase.
b. glucouronidase.
c. oxidase.
d. reductase.

2. Advantages of blood glucose testing over urine testing include all of the following EXCEPT:

a. decreased long term damage caused by hyperglycemia.
b. lessened length of time of hyperglycemia.
c. ability to detect hypoglycemia.
d. reduced need for insulin injections.

3. The preferred area to draw a blood sample for glucose testing is from the:

a. forepart of the wrist.
b. heel of the foot.
c. earlobe.
d. side of the finger.

4. The Consensus Development Conference on Self-monitoring of Blood Glucose concluded all of the following EXCEPT:

a. results from monitoring blood glucose are no different than those obtained from using urine.
b. many patients report satisfaction from more active participation in their treatment program.
c. results from home testing products are similar to those obtained in clinical labo-

ratories.
d. many patients enjoy the sense of enhanced control over their treatment.

5. The metabolite of glucose in cells that contributes to long-term complications in diabetics is:

a. fructose.
b. glycerin.
c. insulin.
d. sorbitol.

6. The substance referred to above in question #5 destroys cells by:

a. changing osmotic balance.
b. interfering with cell membrane development.
c. oxidizing DNA strands.
d. reducing RNA strands.

7. While it may be a concern at point of purchase of a blood glucose meter, the factor that is LEAST important in helping patients live normally and avoid complications is:

a. accuracy.
b. cost.
c. ease of use.
d. precision.

8. Of the following, the ONLY advantage of testing urine over blood for glucose levels is that urine testing:

a. is a more accurate measurement of current glycemia.
b. can detect hypoglycemia.
c. is noninvasive.
d. can determine the metabolic situation more accurately.

9. All of the following are conclusions from the results of the Diabetic Control and Compliance Trial (DCCT) EXCEPT:

a. there was 60% reduction in risk of diabetic retinopathy, nephropathy and neuropathy between the intensively treated group and the standard treated group.
b. Type II diabetics would benefit from lower blood glucose levels, but Type I patients would not.
c. benefits of intensive therapy resulted in a delay of onset and major slowing of complications.
d. benefits of intensive therapy were seen in all categories of diabetic patient subjects.

10. All of the following are test strips for blood glucose levels EXCEPT:

a. Chemstrip bG.
b. Clinistix.
c. Dextrostix.
d. Glucostix.

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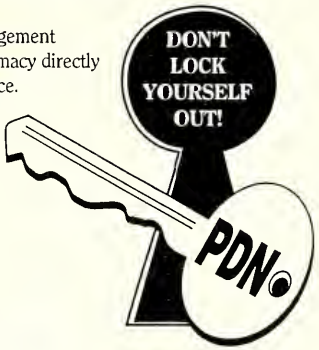

The development of the Pharmacy Direct Network, and its commitment to establishing a national network for all community retail pharmacies in which no independent or chain pharmacy can be locked out of participation, is good for all consumers.

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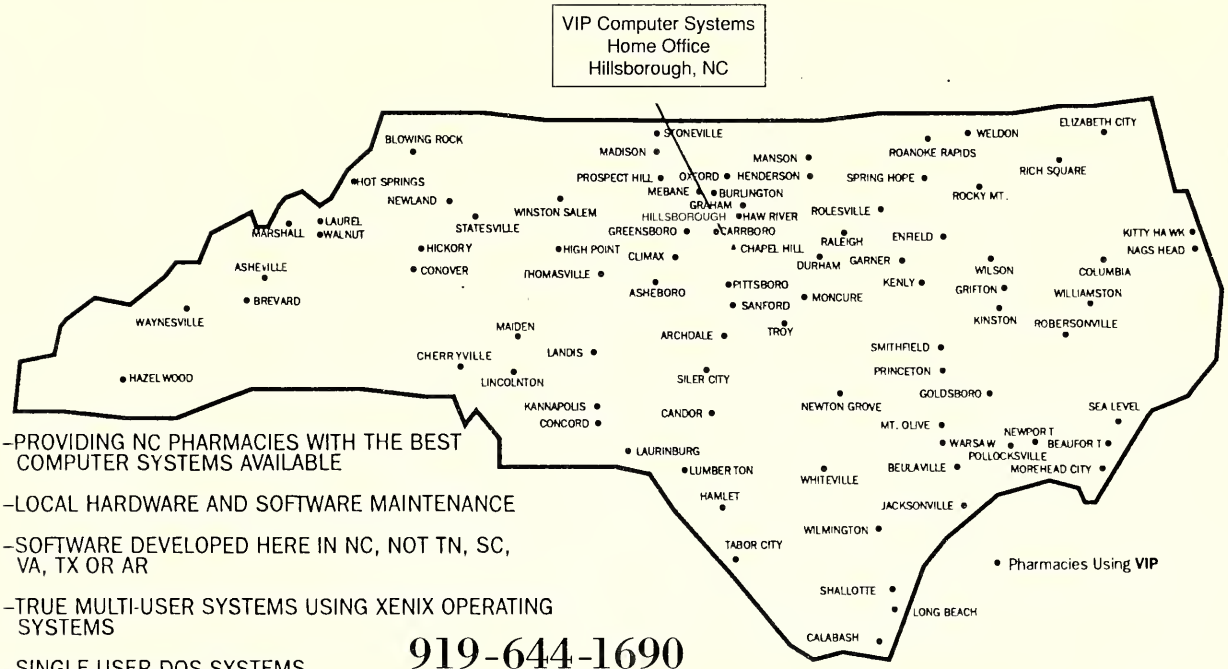

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NORTH CAROLINA PHARMACEUTICAL ASSOCIATION

Officers

President
Joseph A. Edwards Jr.
2025 St. Mary's St.
Raleigh, NC 27608
919•833•0557

President Elect
Mickey W. Watts
P.O. Box 39
Concord, NC 28026
704•782•2194

Past President
W. Robert Bizzell
3423 Buena Vista Court
Kinston, NC 28501
919•527•6929

Journal Staff

Editor and Publisher
Alfred H. Mebane III

Associate Editor and Advertising Coordinator
Terri M. Little

Editorial Assistants
Erie C. Cocolas
Cathy H. Jordan

Business Manager
Betsy Mebane

NCPhA Office
P.O. Box 151
Chapel Hill, NC 27514
919•967•2237 or
800•852•7343

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PRESIDENT'S MESSAGE

PHARMACEUTICAL CARE — IT'S A REALITY!

The theme for the 1994 NCPhA Convention was "Pharmaceutical Care—Are You Willing to Take the Road Less Traveled?" The term "pharmaceutical care" is not new yet there seems to be a hesitancy on behalf of many pharmacists to embrace this concept. Conversations I have heard range from, "Until I get paid for pharmaceutical care, I am not spending my efforts and money promoting it"; to a comment heard from a leading pharmacy administrator who said, "pharmaceutical care is a passing fad, much the same as the apothecary shop of the 1970's where the pharmacy was an office practice with all drugs behind cabinet doors." I personally do not believe any of these naysayers. Pharmaceutical care is here, it is a reality, and if all pharmacists do not change their way of thinking about pharmacy practice they are going to be left behind with only memories of distributive functions, generic substitutions, and complaints about OBRA '90.

Pharmaceutical care is not a pharmacy concept formed out of the need for increased compensation in an era of declining profitability. It is a change in attitude of the pharmacist where knowledge of pharmaceuticals is still important but the most important function of the pharmacist is patient-focused outcomes and the prevention and resolution of drug-related problems. The tools we need are a true commitment to pharmaceutical care, continuing education and certification programs in these areas, intense patient relationship skills, and a united pharmacy championing the tremendous value of pharmacists taking on the responsibility for drug related problems and positive outcomes.

Joseph A. Edwards Jr.
President NCPhA

This NCPhA administration stands for the advancement of pharmaceutical care. That is our commitment. The Pharmaceutical Care and Compensation Committee is working diligently to elevate pharmacy practice standards and to develop models of practice through joint-ventures with third-party payers, pharmaceutical manufacturers, managed care groups, and community hospitals. Our Continuing Education Committee is developing comprehensive programs that push the pharmacist to learn total patient care protocols and is helping produce certification programs in many specialty areas of pharmacy practice such as asthma and diabetes. The State and National Legislative Committees along with the Third Party Committee are working on advancing pharmaceutical care and compensation. The Public and Professional Relations Committee is initiating the Very Involved Pharmacist Program to train pharmacists in communication and leadership skills.

What I am saying is that pharmaceutical

care is alive now, maybe like a young child, but ready to be developed into the most powerful and dynamic direction pharmacy has every taken. We are the most respected profession because our patients know we care about their health and well-being. Now it is time to demonstrate to all health care providers, politicians and health administrators, as well as health care recipients that we are going to take on the responsibility for pharmaceutical care, improve patient outcomes, communicate with patients to increase their knowledge of the relationship of drug therapy and disease state, and make health spending more efficient. I am proud of pharmacy because it is always evolving, always advancing, and always focusing on the patient. I am also committed to setting the pace for change. Come join me in this commitment.

EXTREME ACTION BY FDA THREATENS PHARMACISTS' RIGHT TO COMPOUND

Professional Compounding Centers of America, Inc. (PCCA), a repackager who sells unformulated chemicals to pharmacists for compounding, has restocked all 16 chemicals that were recently seized by the Food and Drug Administration (FDA).

The seizure was not a quality issue, therefore PCCA is not enjoined from supplying and selling chemicals to pharmacists.

PCCA President and CEO, David Sparks, R.Ph., said, "Pharmacists, who were concerned about meeting the unique needs of their patients, especially those who work with hospice, will be relieved to learn that PCCA will continue to supply the chemicals necessary to fill practitioner prescriptions for special patient needs."

In seizing the chemicals, FDA has taken the extreme and unprecedented position that all pharmacy compounding is unlawful. As a result, according to FDA, any bulk drugs that are shipped to pharmacists for use in compounding are considered "misbranded," and therefore violative.

FDA states in the affidavit filed against PCCA that the company is in violation of the Federal Food, Drug and Cosmetic Act (the Act) because it supplies chemicals to pharmacists to compound and, according to FDA, all compounding creates an "unapproved new drug."

The affidavit further states that the chemicals seized are "misbranded" under the Act, because "the drug products that result from use of the articles are new drugs within the meaning of 21 U.S.C. 321 (p), and no new drug applications have been approved for any of these drugs..."

"We believe the agency's position is inconsistent with the Federal Food, Drug and Cosmetic Act, Congress' intent in passing the Act, and FDA's long-standing interpretation of the Act. It is also inconsistent with the fact that every state not only allows pharmacists to compound, but requires pharmacists to possess compounding equipment" Sparks said.

FDA's actions are also inconsistent with its repeated assurances to pharmacists that FDA will not interfere with the extemporaneous compounding of medications to fill prescriptions. Without unformulated chemicals, compounding is not feasible because FDA prohibits pharmacy compounding using finished dosage forms in CPG 7132.06.

PCCA will contest the seizure in federal court. The company has filed a claim to the seized drugs seeking their release.

State of North Carolina

JAMES B. HUNT JR.
GOVERNOR

PHARMACY MONTH IN NORTH CAROLINA

1994

BY THE GOVERNOR OF THE STATE OF NORTH CAROLINA

A PROCLAMATION

WHEREAS, each year, approximately two billion prescription medications are dispensed in the United States; and

WHEREAS, more than one billion of these prescriptions are used incorrectly, resulting in avoidable illnesses, side effects, and hospitalizations; and

WHEREAS, as health-care professionals, pharmacists are dedicated to providing information on various medicines and health matters while counseling patients concerning proper medical care; and

WHEREAS, by sharing their knowledge, pharmacists help patients learn to use their medications correctly; and

WHEREAS, pharmacists have the education and experience needed to significantly contribute to the safe and efficacious use of medication by our citizens; and

WHEREAS, professional pharmacists are instrumental in promoting better health care practices and in reducing health care costs for our citizens;

NOW, THEREFORE, I, JAMES B. HUNT JR., Governor of the State of North Carolina, do hereby proclaim the month of October, 1994, as "Pharmacy Month" in North Carolina, and urge all our citizens to consult their pharmacists concerning the proper use and application of medication for their continued health and well-being.

JAMES B. HUNT JR.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of the State of North Carolina at the Capitol in Raleigh this eighth day of September in the year of our Lord nineteen hundred and ninety-four, and of the Independence of the United States of America the two hundred and eighteenth.

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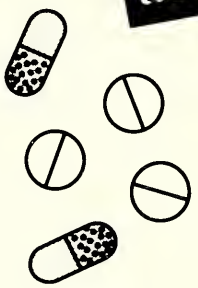

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Implementation of a "Get the Answers" Program

1. What is a "Get the Answers" program?

A review of all medicines a patient takes (both prescription and OTC) by a pharmacist.

2. What are the goals of the "Get the Answers" program?

- screen for drug-drug interactions and adverse drug reactions
- assess and improve the patient's compliance with the drug regimen
- determine your patients' perception and knowledge of their drug therapies
- open channels of communication with patients and educate them
- promote yourself and the pharmacy profession
- intervene in a patient's medication regimen if necessary

3. How do I go about planning the program?

A. Select a target population—good choices include the following high usage or high impact patients: geriatrics, women of all ages, children, caregivers of medicine users, and your regular pharmacy clientele.

B. Select a time and site for the program

i. time considerations

- weekends (especially Sunday) will be the best for both tients and interviewers
- date selection will hinge on when volunteer staff is available and when the target population is available
- set aside a minimum of 3 hours for the program
- schedule interviews to last approximately 20–30 minutes per patient/interview (total of 6–8/day per interviewer)

ii. your site should:

- be accessible to the target population
- have enough space to allow private, one-on-one discussions
- take into consideration disabled or handicapped patients—somesuccessful sites have included churches, senior citizen centers, retirement centers, senior citizen organizations' offices, schools, doctors' offices, local health care clinics, local shopping centers or local malls. Your own pharmacy is an excellent site for the program.

C. Plan to promote and advertise the program/publicity for the event should begin as soon as the time and site are known and should be continued up until the program is

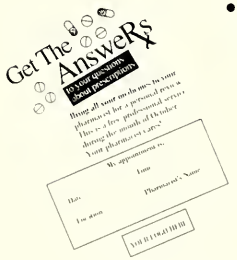
offered. Use the internal publicity organs as much as possible i.e., newsletters, bulletin boards, class announcements etc. The goals of the publicity activities areseveral: to notify potential participants as advance registration/appointments are vital to a smooth clinic day with little lag time for interviewers and minimal waiting time for patients.

D. Recruit volunteers to help-both professional and lay people. Volunteers need to know what is expected of them and when they are scheduled to participate. A reminder phone call no sooner than 2 days before the event describing the day's events will allow volunteers to ready themselves for the program.

E. Orientation and training of volunteers is key to the success of the program. Volunteers need to know what is expected of them and when they are scheduled to participate. A reminder phone call no sooner than 2 days before the event describing the day's schedule will ensure information will be remembered. For pharmacist volunteers, the following can be helpful:

- a copy of the medication history form and instructions for its use
- a reminder of questions most commonly asked by patients
- instructions on when to use each of the references that will be available
- a reminder of the need to have individual professional liability insurance

F. Set up the site to allow for two types of interactions.
Both general screening and private conversations will need to take place. Equipment which will be needed includes: reception desk and chairs, directional signs and posters, extra chairs and waiting area furniture for early arrivals and those who may accompany a patient, tables and chairs for interviews, hazardous waste container for disposal of out-of-date medicines, references, and pens and paper.



G. Final steps to complete the program include:

- complete and turn in evaluation forms and suggestions for next time's program *(sample included)*
- touch base with the volunteers and/or partner organizations regarding the success of the program
- send letters of thanks to volunteers and to patients who were counseled

NOTE: Related items mentioned in the Implementation of a Get the Answers Program , e.g. appointment brochure template, sample sign and the patient counseling tips handout etc., are available through the North Carolina Pharmaceutical Association.

☛ *To order your Pharmacy Month kit call NCPhA 1-800-852-7343 or make your request in writing to: NCPhA, P.O. Box 151, Chapel Hill, NC 27514.*

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GREEN	GREEN	GREEN*
WHITE*	WHITE	WHITE

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Pharmaceutical Care MADE EASY

One Texas pharmacist has developed a formula for providing pharmaceutical care in community practice and is now teaching other practitioners how to do it.

Providing pharmaceutical care can seem like the impossible dream. Who has time to counsel when the line of patients is three deep and the phone is ringing off the hook? How can you take responsibility for patients' drug therapy when only some of their medications are dispensed at your pharmacy? And how can you make sure that you get paid for the extra time it takes to perform pharmaceutical care?

Jeanne Ann Stasny, a pharmacist in Waco, Texas, has answered these questions by developing a pharmaceutical care system called Pharmcare that she says can work in any pharmacy. In addition to running three Pharmcare pharmacies, she is now marketing her plan, training pharmacists to set up pharmaceutical care programs in their own pharmacies.

Pharmaceutical care has been defined as the pharmacist taking responsibility for managing each patient's drug therapy to ensure a positive medication outcome. Pharmacists must "change their traditional mindsets," says Stasny. They must see themselves not as product dispensers, but as drug information and patient care specialists.

The Start of Pharmcare

Stasny first became an advocate of pharmaceutical care when she saw her father's community pharmacy practice squeezed out of business by low reimbursement rates and price competition. "I saw the trend reducing our profession to nothing more than product merchandising. I decided I could manage it by finding the holes in the system where patient needs are not being met and providing services to meet those needs."

As a student at the University of Houston College of Pharmacy, she began an independent study project to develop a model for pharmacy practice that would benefit both pharmacists and patients by removing obstacles to patient care. The result was a comprehensive plan to revamp community pharmacy to provide thorough patient counseling, complete drug monitoring, coordinated care with physicians, and specialized health care services—the basic tenets of pharmaceutical care.

Jeanne Ann Stasny says her model for pharmaceutical care can work in any pharmacy.

Stasny first implemented Pharmcare at Howard Biel's Super Save Drugs in Waco, Texas. Six months after Biel introduced Pharmcare, traffic in his pharmacy had doubled. In 1993, his overall sales increased 20 percent, which also reversed a steady decline Super Save had experienced for the previous two years (see Table 1). Biel has now asked Stasny to transform his three pharmacies into Pharmcare pharmacies.

Stasny is introducing other pharmacists to her Pharmcare principles through a series of seminars. "We simply want to make community pharmacy more involved in improving the quality of patient health care and reducing costs," she says. So far, she has shared her ideas with about 35 pharma-

How Pharmcare Works

"Joan Smith" is a Pharmcare patient with hypertension. She came into the pharmacy complaining of a headache and hoping to get her ibuprofen prescription order refilled.

When she entered the pharmacy, she was greeted by a trained Pharmcare technician. The pharmacy technician pulled her file, and pharmacist reviewed it to see what medications she was taking for her hypertension. By talking with her, the pharmacist determined that she was not taking Inderal (propranolol) three times a day, as directed by the physician. The pharmacist asked to check her blood pressure, which was 208/90 with a pulse of 110. The pharmacist explained to Smith that her blood pressure was a problem, that her headache could be a result of high blood pressure, and that the ibuprofen was not necessary.

The pharmacist called Smith's physician, told him Smith's blood pressure reading, and noted that she was not taking her blood pressure medication as prescribed. The pharmacist also said Smith had a hard time taking her medication three times a day and needed once a day therapy. The physician asked that Smith come in as soon as possible for an examination.

After the physician visit, Smith returned to the pharmacy with a prescription order for Inderal LA (propranolol) 160 mg once a day. The pharmacy technician dispensed the new prescription product; the pharmacist checked it for accuracy and explained to Smith why she must take the drug exactly as prescribed.

After the counseling session was over, Smith paid for the medication while the pharmacist finished completing Smith's cognitive services record to document the services provided. Later, the pharmacist will use this form to help monitor Smith's progress, to submit a reimbursement claim to the insurance company, and to send a quarterly update to Smith's physician.

cists from all parts of the country. At least three have already begun Pharmcare in their practices. The remaining 32 pharmacists are at various stages in the implementation process.

The five day seminar, which includes computer software and training for pharmacists and technicians, costs $3,500 per pharmacy and answers questions on every aspect of Pharmcare, including how to:

- physically set up a Pharmcare pharmacy
- train pharmacists and pharmacy technicians to perform pharmaceutical care
- improve relations with physicians
- set up services and revenue programs geared toward specific diseases

Pharmcare Work Flow

The key to Pharmcare is ensuring that the pharmacist focuses on patient counseling and drug monitoring while pharmacy technicians prepare medication and perform administrative tasks. "The Pharmcare work flow has been carefully coordinated to care for patients every day, realistically *and* economically," says Stasny. "Pharmcare does not require lots of additional staffing—it just relies on an efficient, coordinated system and on documentation."

Patients are given varying levels of care depending on requirements of state law and their individual needs. One scenario might be:

- A Pharmcare pharmacy technician greets the patient and takes the prescription order. The technician fills out an "intake sheet" with the patient's name, address, physicians, insurance, personal medical history, lifestyle information, medications being taken, and medication problems. The technician describes the Pharmcare services available. Patients who agree to subscribe to Pharmcare—typically about 30 percent—pay a $25 annual membership fee, a fee that

will increase to $75-$100 over the next year. Patients without third-party reimbursement programs are not charged an annual fee. They are charged for professional services and drug costs as part of their cash fee.

- Those who do not join still receive patient counseling, drug regimen review and educational leaflets, but not the full range of Pharmcare services, such as physician reporting.
- A pharmacy technician processes the prescription order, preparing the product for dispensing.
- The patient is placed into one of three categories and receives counseling based on need.

Low-risk patients are those who are in excellent or good health, but who may take one or two medications on an as-needed basis. Each low-risk patient receives thorough patient counseling, drug regimen review and preventive screening. As needed, the pharmacists will telephone the patient's physician to resolve queries, such as whether the patient could be put on a drug with fewer side effects. The pharmacist documents the interventions and observations in the patient's computerized file.

High-risk patients are those in fair health who use eight or more medications or visit more than one physician. In addition to providing the services given to low-risk patients, the pharmacist evaluates each high-risk patient's condition and response to medication. The pharmacist documents observations in the patient's file and flags the file as a reminder to send the physician a quarterly update on the patient's medication regimen and progress.

Special-risk patients are divided into groups by specific drug therapy or condition, such as asthma, diabetes, high cholesterol, or hypertension. All special-risk patients are enrolled in a "patient care module" that corresponds with their disease state. When a new patient is enrolled, the pharmacist explains the module's services. For a patient with diabetes, the pharmacist will check the progress of existing patients by performing relevant tests, adjust drug therapy as necessary, update patients on their progress, and counsel them about changes in drug therapy. Each action is documented in the file. As with high-risk patients, the special-risk patient's file is flagged for a quarterly report to the patient's physician.

- When the counseling session is finished, the pharmacist completes the cognitive services record. This form tracks the patient's response to a medication and provides a document that the pharmacist can submit to insurance companies to be compensated for extra services.
- The patient pays for the prescription; either a pharmacy technician or a cashier collects the money.

Patient and Physician Reaction

The only negative reaction Stasny receives is from some patients who say they do not have the time to sit through the comprehensive counseling—they would rather just pick up their medications and go. Over time, however, most patients decide that the few minutes spent talking to the pharmacist is worth the tremendous benefit they get.

"I honestly don't know how much more I pay for Pharmcare, but whatever it is, it's worth it," says Betty Gianella, an arthritis patient at Biel's Super Save Drugs in Waco. "These pharmacists educate the patient about their disease and medication. They never hurry or rush the counseling. They talk to me as if I were the only patient they have to care for. I've never found that anywhere else."

Physicians who have worked with Pharmcare pharmacists are also enthusiastic about the service. Steve Raley, a physician at Hillcrest Medical Center in Waco, believes Pharmcare provides "a good value for patients."

Pharmacist Compensation

To implement Pharmcare, a pharmacy owner must invest money to train technicians and remodel the pharmacy as necessary—changes that can cost anywhere from $5,500 to $13,500, depending on how a phar-

Pharmcare Tasks

Pharmacists' Tasks

- Conduct drug regimen and drug interaction reviews and patient counseling for each patient.
- Intervene on each patient's behalf by calling physician, adjusting medication regimens and conducting assessment tests, as necessary.
- Check for drug-food interactions and monitor side effects.
- Check the accuracy of all prescription orders prepared by pharmacy technicians.
- Monitor and manage each patient's drug use and disease state.
- Prepare quarterly reports for the patient's physicians to update them on patient therapy.
- Perform various tests, as needed, such as cholesterol screens, glucose monitoring and blood pressure checks.
- Document all interventions, counseling and observations in patient charts and on billing forms.

Technicians' Tasks

Depending on the pharmacy, there may be two types of Pharmcare technicians— one for dispensing and one for patient care tasks. Together, they perform the following daily tasks:

- Greet patients
- Gather data from patients for patient intake sheet.
- Explain Pharmcare membership
- Enter new patient information into computer.
- Where allowed by state law, dispense medications, which includes counting medication and preparing labels (pharmacists check for accuracy).
- Answer phones.
- Complete patient profiles.
- Stock medications and return medications to their proper places.
- Serve as cashier or supervising cashier.
- Perform various administrative tasks, such as dealing with third-party payers.

Sales of Super Save Drugs

Year	OTC Sales	Rx Sales	Total Sales	% Increase*
1988	$115,162	$1,256,648	$1,371,810	NA
1989	$122,353	$1,533,374	$1,655,727	10
1990	$135,676	$1,753,458	$1,889,134	4
1991	$150,183	$2,050,369	$2,200,552	6
1992	$158,468	$2,167,440	$2,325,908	2
1993	$172,357	$2,677,697	$2,850,054	20

Note: Pharmcare implemented in 1993.

*Adjusted for inflation

NA=Not available

macy currently operates. (The costs would increase if additional technicians were needed. Stasny estimates one pharmacist and two technicians are needed per day for every 125 prescription orders processed.)

After the initial investment, says Stasny, Pharmcare pharmacies eventually show greater profit because of the increased number of patients, the dues for annual Pharmcare membership, $25 fees for in-depth 20-minute counseling about possible drug-related problems, and cognitive services reimbursements from some third party payers.

Stasny says that the pharmacy's greatest profit on cognitive services comes from the annual fee, not the specialized services. But she emphasizes that people are willing to pay for the extra Pharmcare services. "Of course, we are not charging rock bottom prices, but people are receptive because we offer a service that they need," she explains.

To be reimbursed by third party payers, Stasny submits a claim to the patient's insurance company for every intervention. The claim usually consists of the standard Health Care Financing Administration form 1500 and the Pharmcare cognitive services form, which details the services provided. She admits that, so far, she has seen only "scarce and sporadic" compensation for Pharmcare's specialized services—probably only 10 percent of the claims she has submitted. But Stasny is confident that reimbursement will increase as pharmaceutical care services become more common in everyday practice.

"The third parties are beginning to recognize what we're doing and see that, in the long run, our services will save money," Stasny explains. "The problem is that they can't set up a reimbursement system for three stores in Waco. If we were part of an entire network of pharmacies that supplied pharmaceutical care, we all could be reimbursed."

A national network might be more than a pipe dream. Twenty pharmacies in four states (Tennessee, Texas, Washington, and Nevada) are now part of the Pharmcare network, and pharmacies in three other states have expressed interest.

Stasny is trying to educate pharmacists about the need to perform pharmaceutical care. "If we all do it, it will be standard and we will all be reimbursed for it. And, most important, the patient will benefit through better health and lower overall health care costs. To survive, we have to fill a need in society," she says. "Take a look at Henry Ford—he created the number one selling automobile. Yet, in a span of two decades, his company went bankrupt—all because Ford wouldn't change to meet societal needs. We can't let that happen to pharmacy," she urges.

This article was written by Sara Martin, a freelance writer in Washington, D.C. Reprinted with permission from American Pharmacy, *March 1994.*

Stasny encourages pharmacists to call or write her to discuss their individual pharmacies or the Pharmcare training sessions: Jeanne Ann Stasny, c/o Pharmcare Inc., P.O. Box 21052, Waco, TX 76702-1052 or call (817) 776-8134.

WELCOME NEW MEMBERS!

The following have recently become members of the NCPhA. They join more than 2,500 colleagues in the Association who are committed to advancing the interests of pharmacy in North Carolina.

Omorinsola C. Abisogun, Raleigh
Amy A. Alford, Raleigh
Katie Ammirato, Charlotte
Jo Ellen Baldwin, Hope Mills
Cornelius J. Bane, Columbia CT
G. Scott Barham, Greensboro
Cal Beddingfield, Durham
Monique E. Bembrey, Falkland
Dana S. Blecke, Fayetteville
Marcia R. Bradshaw, Greenville
Michelle Carpenter, Nashville
Kevin Carter, Lumberton
Samuel M. Cavanuagh, Lumberton
Karen B. Chavis, Maxton
Rodney G. Cline, Advance
David E. Cidy, Hickory
Bria B. Cribb, Tabor City
Emory B. Daniel, Tarboro
Hugh W. Davis, Copake NY
Lydia Drew, Raleigh
Jamie L. Durham, Greenville
Richard F. Eagleton, Charlotte
Melanie J. Edwards, Wendell
Melissa L. Ellis, Chapel Hill
Michael C. Eudy, Statesville
Dimitry P. Fenev, Kings Park
Chris Fievet, High Point
Julie K. Forehand, Oxford
Debra F. Forzese, Winston-Salem
Lorinda A. Furlough, Greenville
Jeffrey K. Galloway, Chapel Hill
Sharon D. Glass, Tarboro
Mike Harrill, Maiden
Tracey D. Hogue, Lillington
Wendy G. Holcombe, Nags Head
Cheryl Hoover, Charlotte
Coo Howard, Honolulu HI
Terri Howard, Chapel Hill
Ebere Igboko, Raleigh
Charles W. Ivins, Etowah
Monika L. Jeffers, Durham
Glenda H. Kessell, Gastonia
Ann Koeniguer, Summerfield
Steven A. Kollross, Atlanta GA
Brian R. Kosobukci, Chapel Hill
Lisa M. Kramer, Chapel Hill
Timothy A. Kuhn, Chapel Hill
Thomas C. Larr, Fayetteville
Rita M. Lichtman, Chapel Hill
Michael List, Charlotte
James S. McBrayer, Charlotte
James D. McClintick, Brandon
F.D. McDonald, Lumberton
AnnaC. McLaughlin, Lumberton
Cynthia D. McLean, Fayetteville
Beth McMillan, Wade
Jay Middleton, Marlton NJ
Dennis F. Moore, Reidsville
Timothy Morley, Charlotte
Jeff Murray, Acworth GA
Susan M. Nagel, Winston-Salem
James B. Patton, Canton
Jennifer W. Phillips, Raleigh
Sriramam Rayasam, Durham
Jonathan D. Reece, Hudson
Jarrell R. Sigmon, Hickory
Eric T. Smith, Durham
Wayne P. Smith, Greenville
Dawn Stacy, Boone
Allen J. Stallings, Wallace
James H. Strickland, Wilmington
Beth Stroud, Belgrade Lakes ME
Paul D. Stroud, Belgrade Lakes ME
Thomas E. Sullivan, Charlotte
Marcus E. Swann, Hickory
Suzanne E. Szlaius, Raleigh
Karen Thompson, St. Thomas VI
Dan Turner, Kenly
Louis Utsey, Hickory
Dana Waas, Durham
Kimberly N. Waerness, Cary
Bradley S. Weaver, Brown Summitt
Angela F. White, Fayetteville
Judy Williams, Fayetteville

DIHYDROXYACETONE-CONTAINING SUNLESS OR SELF-TANNING LOTIONS

Stanley B. Levy, MD, *Chapel Hill, North Carolina*

Dihydroxyacetone-containing sunless or self-tanning topical preparations are enjoying a resurgence of use in recent years. The chemistry of dihydroxyacetone, mechanism of action, application, safety, indications, and available products are reviewed. (J Am Acad Dermatol 1992;27:987-93.)

Despite increasing public awareness of the risks of skin cancer and premature aging associated with sun exposure, the notion that a tan promotes an attractive and "healthy" appearance remains in fashion. In response to demand for a safer or more convenient way to tan, cosmetic companies have produced more self-tanning lotions. The resurgence of interest in products containing dihydroxyacetone (DHA) as the active ingredient may be attributed to these factors and to the availability of improved formulations.

The purpose of this article is to review DHA containing tanning lotions: their chemistry, mechanism of action, appropriate use, and availability.

Definitions of Product Types

Sunless or self-tanning lotions contain DHA that darkens the skin by staining. DHA is classified in the Cosmetic, Toiletry and Fragrance Association Ingredient Handbook as a colorant, a colorless dye approved as safe by the Food and Drug Administration (FDA). These lotions may be confused with bronzers, usually available in gel formulations, intended to produce a darker color on the skin by the use of water-soluble colorants. The latter are dyes that color immediately but temporarily and are easy to remove with washing. Tan accelerators containing tyrosine and sometimes riboflavin claim to stimulate the production of melanin with exposure to sunlight but have not proved efficacious. Tanning promoters containing 5-methoxypsoralen (bergapten) or oil of bergamot are not available in the United States and have been reported to cause phototoxicity and photocarcinogenicity in mice.

Tanning pills containing canthaxanthin impart a yellow cast to the skin by depositing a carotenoid; these have been banned in the United States. A retinopathy caused by deposition of canthaxanthin has been reported, as have urticaria and hepatitis. Recently aplastic anemia has been associated with ingestion of this substance.

Chemistry

DHA ($C_3H_6O_3$) is a white, crystalline, hygroscopic powder with the structural formulas shown in Fig. 1. DHA is an intermediate in the metabolism of carbohydrates in higher plants and animals. This three-carbon sugar is normally found as a dimer in freshly prepared aqueous solution. It reverts to the monomer with heating to effect solution in alcohol, ether, or acetone.

DHA is stable between pH values of 4 and 6. Above pH 7, brown compounds are formed that lead to loss of efficacy. Therefore a buffered mixture to about pH 5 is most stable. Prolonged heating above 38° C will also affect stability. DHA can react with oxygen– and nitrogen–containing compounds, collagen, urea derivatives, amino acids, and proteins, which should be avoided in the formulation of DHA in a cosmetic vehicle.

Mechanism of Action

The site of action of DHA in the skin is the stratum corneum. Tape stripping removes the color, as does mechanical rubbing. Deeper staining of the palms and soles and no staining of mucous membranes have been noted. Microscopic studies of stripped stratum corneum and hair demonstrate pigment masses distributed irregularly in the keratin

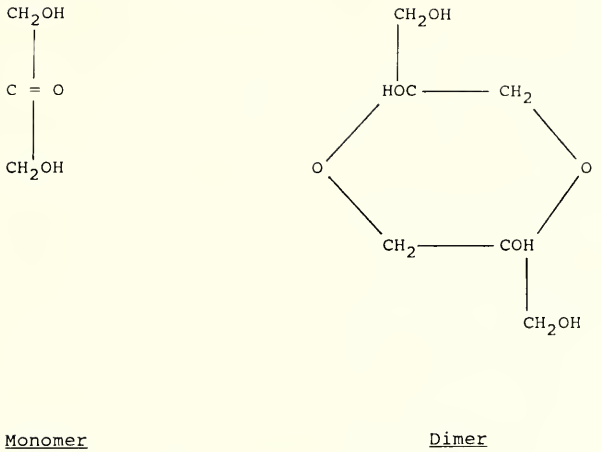

Fig. 1. Chemical structure of DHA.

layer. Intradermal injection of DHA produces no pigmentation. The immersion of ground callus in a DHA-containing solution produces staining.

Wittgenstein and Berry were the first to suggest that staining of skin might proceed through combination of DHA with free amino groups in skin proteins. Maillard previously studied a "browning reaction" that occurs when simple amino acids react on warming with certain sugars. The Maillard reaction has been defined as the reaction of the amino group of amino acids, peptides, or proteins with the glycosidic hydroxyl group of sugars. The brown products formed have been referred to as melanoidins. This reaction has many commercial and biologic implications, particularly in the food preservation industry.

DHA in the context of this reaction may be considered a three-carbon sugar. The amino groups are supplied by keratin and sweat. Free amino acids in the epidermis may be involved in vivo because analyses in one study failed to detect the presence of reacted DHA in callus. Pretreating ground callus with formaldehyde removes the amino groups and appears to block the reaction further relating it to a Maillard type of reaction. Although the formation of pigments or melanoidins is different from that of melanin, some of their properties are similar, especially their absorption spectra. This suggests some protection from radiation, which will be discussed later.

One study attempted to improve the pigmentation achieved by the reaction of DHA with the skin. By substitution of a modified sulfur-containing amino acid (methionine sulfoxide) for naturally occurring amino acids, color of greater intensity and duration was obtained. This allowed a lower concentration of DHA to be used. However, the immediate reactivity between methionine and DHA requires a two-compartment system to dispense both separately at the time of application.

Sunscreen Activity

Initial studies with DHA for sunscreening properties revealed no protection from UV light. In the FDA monograph for sunscreen drug products for over-the-counter drugs, the expert panel concluded that DHA was a cosmetic ingredient except when used sequentially with lawsone (2–hydroxy–1,4–naphthoquinone). Lawsone is the principal dye component of henna, a vegetable dye from which the naphthoquinone is derived from the dried plant leaves. Henna has a

long history of use as a nonpermanent hair colorant.

Fusaro et al. studied this combination in animal systems and in normal skin, as well as in patients with chlorpromazine sensitivity, erythropoetic protoporphyria, and other photosensitivity disorders. They demonstrated a broad spectrum of UVA/UVB photoprotection in these patients. From 2.5 to 5 minimal erythema doses protection could be demonstrated with 3% DHA and 0.035% to 0.13% lawsone combinations. Neither DHA nor lawsone alone provided significant protection against UVB, whereas some protection from lawsone alone would have been expected on the basis of demonstrated lack of activity of DHA alone.

More recently, these same investigators reported the photoprotective efficacy of DHA and structurally similar compounds against UVA and visible light. In psoralen-sensitized rats they demonstrated that the skin pigment produced by browning agents absorbed in the low (violet) end of the visible spectrum with overlap to longer wavelengths of UVA. This might explain their earlier finding that DHA protected some patients with erythropoietic protoporphyria.

Despite the advantages of broad-spectrum protection and chemical binding to the skin producing waterproof, rub–proof characteristics, the chemical instability of the DHA–lawsone mixture requiring separate applications and the imparting of an uneven color to the skin have limited their use. Three percent DHA and 0.25% lawsone are listed as category I sunscreen active ingredients in the sunscreen monograph. To my knowledge, this combination is not used in any commercial products at this time. Clearly, persons who use cosmetic tanning products containing DHA need to be cautioned that despite a perceived darkening of their skin, no significant sunscreen protection is provided by their use.

Preparations Available

Most cosmetic preparations contain 3% to 5% DHA. Initial studies with direct application to the skin were done in higher concentrations. Darkening was shown to be concentration dependent to above 30%, but cosmetic acceptability was not assessed. A saturation point in the development of color occurs even with maximum concentrations of 90%. Because of stability problems, actual measured concentrations of available products show some preparations assayed from

Table I. Available self-tanning agents by brand name

- Almay Sunless Tanning Lotion
- Amway's Sun Pacer Sunless Tanning Lotion
- Bain de Soleil Sunless Tanning Lotion
- Biotherm Hale Sans Soleil Self-Tanning Lotion
- Chanel Bronzage Automatique Perfect Colour Self-Tanning Lotion
- Chlarins Self Tanning Milk
- Coppertone Sunless Tanning Lotion
- Estee Lauder Self-Action Tanning Cream
- Eutra Tan Sun-Free Tanning Lotion
- Lancôme Conquate du Soleil Self-Tanning Lotion
- Mary Kay Sunless Tanning Lotion
- Merle Norman Light Self Tanning Lotion
- Merle Norman Light Self-Tanning Moisturizer
- Prescriptives Sun-Free Tanner
- Princess Marcella Borghese Spa Solare Continuous Tan for Face & Body
- QT Suntan Lotion by Coppertone
- Vaseline Brand Intensive Care Moisturizing Sunless Tanning Lotion

store shelves and after use are below 3%, particularly if subjected to above room temperatures (Almay Inc., unpublished data).

The cosmetic acceptability of these products seems to have improved in recent years leading to a more natural-appearing brown or golden hue, as opposed to a more off-color orange observed with older formulations. The hues obtained may be more acceptable to medium-complected persons (skin phototypes II and III) than those with dark or fair complexions. Without published studies as to why this improvement has occurred, it may be that purer supplies of DHA, the refining of DHA–containing vehicles to allow better penetration, the recognition of the need for a lower pH, and a more rapid color change with a lower concentration of DHA may have all contributed (Almay Inc., unpublished data).

Table I lists some of the available products. Some have more than one shade for different skin types. It is assumed that those available for darker skin contain greater amounts of DHA. There has been a recent trend to add sunscreen with a labeled sun protection factor. This is probably somewhat confusing to consumers, who might expect more long-lasting sun protection from preparations that continue to show color change in the skin for several days.

Application

After application of DHA preparations, a color change can be seen within an hour and under Wood's light within 20 minutes. Most persons can achieve their desired tanned appearance with two to four successive applications separated by several hours. This appearance can be maintained by continued applications every 2 to 4 days. Persistence of coloration is somewhat dependent on anatomic location; the face requires fewer applications but more frequent reapplications to achieve the desired appearance than the extremities. Because the depth of color directly correlates with thickness and compactness of stratum corneum, the hands must be washed after application. Rougher, hyperkeratotic skin takes up the color more unevenly, as does older skin or mottled or freckled skin. The latter areas may retain the color for prolonged periods. Hair and nails may color but not the mucous membranes. Scars color poorly. Fabrics may also stain if they come in contact with these preparations before they dry on the skin (15 to 30 minutes). The most even color is obtained when the skin is lightly buffed or abraded before application to enhance its smoothness.

In patients with vitiligo these preparations also work best in those with skin phototypes II and III and may be particularly useful if their normal skin is already tanned. The major problem is color-blending and matching at the border of vitiliginous and normal skin, which stains darker.

Adverse Reactions

Despite the availability of self–tanning lotions for many years, the first two proven cases of contact allergy to DHA have only been reported recently. The few older case reports did not document positive patch tests to this ingredient.

Conclusion

DHA-containing self-tanning preparations appear to be a safe, effective means for some persons to obtain a tanned appearance without exposure to UV rays. Greater interest in these products has developed because of more widely available preparations and improvement in cosmetic acceptability. In persons with medium light skin pigmentation, with some skill and practice, a brown or golden–colored appearance can be achieved with several successive applications and maintained with reapplication every 2 to 4 days. Because of their mode of action and lack of inherent toxicity, these formulas are relatively safe. However, patients need to be informed that they offer no protection against UVB and, if formulated with standard sunscreens, the duration of UV protection is more short-lived than that of the skin color change.

References available upon request.

USP DRUG PRODUCT QUALITY ReviewW
A PUBLICATION OF THE USP PRACTITIONERS' REPORTING NETWORK℠

No. 42

ALL UNITS ARE NOT EQUAL

A unit is a unit is a unit, right? That is exactly the misconception held by many practitioners. The Practitioners' Reporting Network℠ (USP PRN℠) and the Institute for Safe Medication Practices, Inc. have received reports that relay health care practitioners' confusion about the accurate measurement and meaning of "units" as they relate to drug potency. The following incident represents the type of reports received:

> A nurse used a 1 mL *insulin* syringe (based on a concentration of 100 units of insulin per milliliter) to administer a 25-unit dose of calcitonin injection. The nursing home staff normally uses 1 mL *tuberculin* syringes to measure the calcitonin, but the syringes were unavailable. The concentration of the calcitonin was 200 International Units per milliliter. Instead of calculating the dose in milliliters, the nurse measured the dose in units on the insulin syringe thinking that a unit of one drug is equal to a unit of another. Consequently, the patient was given double the dose, or 50 units of calcitonin.

Some of this confusion exists because practitioners may not understand that the term "unit" is not analogous to any metric measure and that there is no universal equivalency between different units. A milligram of mass is the same wherever it is measured, no matter what material is measured. A biological "unit," however, is an expression of potency that differs for each stated biological substance. A unit of activity is *not* measurable by any particular weight or volume and is the criterion against which commercial products are assayed for potency. In fact, there is no such thing as a "unit" used as a freestanding term. There is the unit for Insulin and the unit for Calcitonin, but neither of which bears any relationship to the other. In the context of food and drug regulation, "units" have no purpose other than that of a universal expression to denote an amount of a stated biological activity unique for a specified biological substance.

The need for international harmonization of biological activity measurement led to the initiation and continued development of the International Biological Standardization program, now carried out by the World Health Organization (WHO). The International (biological) Unit for any particular substance, which cannot be characterized completely by chemical and physical means, is the expression of its biological potency. The WHO establishes each particular biological preparation (the International Standard) and defines the activity contained in a specified amount of that particular preparation as the biological "unit" for that substance.

The International Standard established by WHO serves as the official worldwide reference in a biological assay. Authoritative bodies in individual countries establish their own national standard which is calibrated in terms of the International Standard. Each becomes the legal reference for the particular country. Therefore, units defined by national standards could be named to indicate their national origin (e.g., USP Units). The USP or the Food and Drug Administration define the biological activity for vitamins or antibiotics in the United States according to the quantity of a particular preparation that contains a stated amount of vitamin or antibiotic activity. Unless otherwise indicated, USP Units are equivalent to the corresponding International Units, where such exist or formerly existed.

Recent advances in chemistry and analytical techniques now make it possible to determine and define chemically the activity of many substances that previously could be quantified only biologically. When the chemical characterization or physical quantification (potency) of a substance or dosage form becomes feasible, there is no longer a need for a biological standard or for a biological unit of activity. Certain International Standards that previously used units have been discontinued because appropriate chemical and instrumental methods for their characterization have been developed. The International Unit for Vitamin A, Vitamin E, and Vitamin D were discontinued in 1954, 1956, and 1991, respectively. Nonetheless, the current label of a product that contains any of these three fat-soluble vitamins is likely to state the vitamin potency only in International Units or USP Units per capsule/tablet because of the public's familiarity with this obsolete terminology.

The use of units to measure other biological substances, like heparin, calcitonin, and insulin, can be expected to be discontinued once techniques to purify and analyze them are improved even more. Eventually, metric units would be used to express strength on product labels and in prescription orders. The process of changing label terminology may take somewhat longer in the case of insulin because of the unfamiliarity of millions of diabetics with the relevant metric equivalents.

Until the time when all USP articles are measured in metric units, informed health care practitioners must continue their diligence to educate the public that all units were not created equal.

REMEMBER: WHEN WRITING ORDERS FOR PRODUCTS THAT ARE MEASURED IN UNITS, ALWAYS WRITE OUT THE WORD "UNITS." NEVER USE THE ABBREVIATION "U"; A CARELESSLY HANDWRITTEN "U" CAN BE MISINTERPRETED AS A ZERO, LEADING TO TEN-FOLD OVERDOSES.

To report problems with drug products or to receive further information, call the USP Practitioners' Reporting Network℠ at 1-800-4-USP PRN.

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Issued 6/94

AIDS: A DIVISIVE SUBJECT

By Wanda Norris, Pharm.D. Candidate
Campbell University School of Pharmacy

The view of AIDS held by health care professionals has changed drastically over the past ten years. It is reasonable to assume that our opinion of the disease will have changed just as radically within the next decade. Ironically, it is our perception of, and accountability for, AIDS today that will affect public health for generations to come. Each year the number of people infected with HIV rises, as does the total cost of care. It is appropriate for all health care professionals to consider the problem of AIDS; to know who makes the decisions regarding AIDS as pertaining to public health; to recognize current trends in management; and to decide how an individual might contribute to the solution.

Wanda Norris

The face of AIDS is changing. Those who have not seen it in the mirror or in the eye of a loved one have only to wait. Contrary to public opinion, AIDS is not discerning of sexual orientation, color, or social class. Its victims encompass hemophiliacs, who for years were transfused with blood untested for HIV; children who contracted the virus from their mother or from breast milk of a mother who may or may not have known she was infected; wives or husbands who never suspected that a sexual indiscretion might bring the virus into their lives; and naive youth born into a society that has accepted sexual experimentation as a way of life. AIDS was discovered in communities of homosexuals and drug abusers. A surprising number of well-educated Americans still believe it remains there. It is the denial couched in this concept that is even now enabling HIV to creep silently through the population.

Current epidemiology traces the movement of HIV into the mainstream of society. In 1992 AIDS was the leading cause of death for people between 20–39 years old in three North Carolina counties, according to an epidemiological update by the North Carolina Department of Environment, Health, and Natural Resources. This was in comparison to unintentional injuries, homicide, suicide, heart disease, and cancer. There is a disturbing trend of rising incidences of HIV in North Carolina's teenagers and young adults. A decrease in male-to-female ratio points to heterosexual transmission. Since HIV became reportable in February 1990, the number of people between 15–29 years old annually reported to be infected in North Carolina has risen by 11%(from 594 to 660 cases). Health department officials estimate that 50% of those infected with HIV will develop AIDS within 10 years.

The North Carolina Commission for Health Services decides public policy on AIDS in this state. It is this body that adopts rules for prevention and control of all communicable disease in North Carolina. The Commission is composed of twelve North Carolinians, four of whom are elected by the North Carolina Medical Society and eight of whom are appointed by the Governor. Of those members appointed by the Governor there must be a pharmacist, an engineer experienced in sanitary engineering or a soil scientist, a veterinarian, an optometrist, a dentist, and a nurse. All must be licensed

or registered as their profession requires. Each member serves a four year term. The N.C. Department of Environment, Health and Natural Resources acts as staff for the Commission, making recommendations based on scientific and statistical findings as well as measures proven effective and reported by other states. In North Carolina there has, it seems, been a conscious effort to decide matters of public health in a scientific rather than a political forum.

Anonymous vs. confidential testing for AIDS has been a controversial topic in this state in the last few years. Gay rights activists mounted a united and militant front in 1991 when the Health Commission discussed discontinuing anonymous testing in the state. The activist groups favored maintaining statewide anonymous testing. This procedure allows individuals the right to decide how to act with the knowledge that they are HIV-positive. There are others outside the gay rights movement who believe that the individual who is HIV positive has the responsibility to notify intimate contacts that they are at risk. The Department of Environment, Health and Natural Resources provides counseling for all individuals tested.

In 1991, anonymous testing was suspended in all except seventeen North Carolina counties, and under court order, an eighteenth was added. On January 4, 1993, by court order, anonymous testing was again made available in all one hundred counties. Since 1991, studies have been ongoing to determine the effect that suspension of anonymous testing would have on public health. Early in 1994, it was reported that there was no overall detrimental effect influenced by reduced anonymous testing. The net result of the change in the procedure was a decreased testing among men who have sex with men, but an increase in partner notification. As of September 1, 1994, only confidential AIDS testing will be offered in North Carolina. While this obligates health care professionals to preserve confidentiality, it assures that partners of those testing positive will be notified either by the patient or by the health department that they are at risk. Further testing of contacts will be encouraged in order to counsel and educate those who are positive or at risk concerning measures for their own well being and preventing spread of the virus.

AIDS is a divisive subject. Gay rights activists are united in understanding, purpose and action. Those outside the movement have broadly diverse perceptions of AIDS and its victims. Invariably, general group discussions reveal a tendency to dehumanize the person who is HIV-positive. In any forum, the tone born of this philosophy is discriminatory and suppressive. It is at this juncture that those with a more conservative leaning find themselves at a definite disadvantage. Ideas such as mandatory testing for pregnant mothers and screening of health care professionals performing procedures which place them at high risk for transmission, cannot be effectively addressed by any group without education and unity of purpose. North Carolinians who weigh individual responsibility for the public welfare more heavily than individual rights are depending greatly on the Health Commission. There is, however, a need for the individual to accept the responsibility of an educated opinion. Any sort of enlightened expressed interest in AIDS policy should be founded in education concerning the virus, its universal affinity for mankind, means of transmission and prevention, and how it affects public health physically and financially. It is necessary that each individual realize that denial to himself and others regarding his susceptibility hampers prevention and is detrimental to the entire population. It is also imperative to understand that protection against AIDS does not preclude human kindness nor necessitate irrational discrimination.

AROUND THE STATE

Goldsboro—The Wayne County Pharmaceutical Society recently elected new officers: Debbie Meyer, vice president; **Sheila Whitehead**, president; Tonya Best, secretary; and **Sherry Denning**, treasurer.

Four Oaks—**Sam George** was recently recognized for his efforts in improving the health-care services in Johnston County. George serves on the board of directors for the Johnston Memorial Hospital Foundation.

Williamston—**Barry Wester** was honored by the Martin County Chamber of Commerce as Small Business Person of the Year. Wester is the pharmacist-manager at Clark's No. 1.

Goldsboro—**Rick Sessions** recently presented a program to the Wayne County Chapter of the American Diabetes Association. His topic was drugs and drug interactions in diabetes patients.

Kenly—**Allan Boyd** was recently appointed to the Town Council. Boyd has been very active in his community. He is a member of the board of trustees of Johnston Memorial Hospital in Smithfield, a former president of the Kenly Kiwanis Club, and a member of the Masonic Lodge. In addition, he has served the town as a member of the Planning Board.

Chapel Hill—**Julian Harris**, of Fearrington Pharmacy, recently attended a two-day seminar in Houston. The program was sponsored by the Professional Compounding Centers of America Inc. The seminar was designed to enhance Harris' abilities to meet the unique needs of patients in preparing medications.

Person County Society of Pharmacists met on August 7 at Person County Memorial Hospital. **June McDermott**, clinical assistant professor at the UNC School of Pharmacy, presented a program entitled *Homeopathy: A Pharmacist's Perspective*. Program attendants received 2 hours of continuing education. The Society also held a business meeting to elect new officers. The new 1994-95 officers are: Kim Frazier, president; **Jamie Huff**, vice-president; **Joan Floyd**, Secretary/Treasurer; and Ben Tillet and Tommy Oakley for members-at-large. The next meeting will be held in October and will be a dinner meeting sponsored by Glaxo. Any pharmacist interested in joining Person County Society of Pharmacists may receive more information by calling (910) 599-6833.

Need help preparing a presentation?

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CE CALENDAR

OCTOBER 7 – 27, 1994

NOTE: Preregistration is required for these programs. Most program brochures are mailed to local or regional audiences. Call the contact person who is listed for a specific program if a brochure is not received or if additional information is needed.

Program Title: Annual Carolina Seminar
Program Date: October 5-7, 1994 **Contact Hours:** *10.0
Location: Holiday Inn Four Seasons, Greensboro
Co-Sponsor: NC Society of Hospital Pharmacists/UNC School of Pharmacy
Contact: Betty Dennis 919-966-1128

Program Title: Diagnosis & Treatment of Migraine Headaches
Program Date: October 9, 1994 **Contact Hours:** *2.0
Location: Greensboro AHEC, Greensboro
Co-Sponsor: Greensboro AHEC & Guilford Co. Society of Pharmacists
Contact: Jack Watts 910-574-7570

Program Title: Current Issues in Pharmacy Practice
Program Date: October 9, 1994 **Contact Hours:** *6.0
Location: Mountain AHEC, Asheville
Co-Sponsor: Mountain AHEC
Contact: T. Donald Marsh 704-257-4468

Program Title: Treatment Options for the Headache Patient
Program Date: October 16, 1994 **Contact Hours:** *2.0
Location: Bowman Gray Sch. of Med. Babcock Aud., Winston-Salem
Co-Sponsor: Northwest AHEC
Contact: Julie Kirk 910-716-9043

Program Title: The Dialysis Patient
Program Date: October 26, 1994 **Contact Hours:** *2.0
Location: Cutting Board Restaurant, Burlington
Co-Sponsor: Greensboro AHEC/Alamance Co. Pharmaceutical Society
Contact: Jack Watts 910-574-7570

Program Title: New Drugs 1994: Part I
Program Date: October 27, 1994 **Contact Hours:** *2.0
Location: Mountain AHEC
Co-Sponsor: Mountain AHEC
Contact: T. Donald Marsh 704-257-4468

•ACPE approved program
The above programs are cosponsored by the UNC School of Pharmacy

CORRESPONDENCE COURSE

ADVISING PATIENTS ON "SWITCH" DRUG PRODUCTS PART III: COUNSELING ON TOPICAL DRUGS SWITCHED FROM PRESCRIPTION TO OTC STATUS

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, Pharm.D.
Professor of Pharmacy Practice
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to present information to use in counseling persons on the proper use of topical drugs that have been switched from prescription to OTC status, and identify prescription drugs that may be shifted to OTC status in the future.

Objectives

At the conclusion of this lesson, the participant should be able to:

1. identify topical drugs that have been switched from prescription to OTC status;
2. demonstrate knowledge of information to use in counseling patients on topical drugs that have been switched from prescription to OTC status; and,
3. select prescription drugs that are candidates for switching to OTC status.

The following information is offered as a guide to patient counseling on topical drugs switched from prescription to OTC status. Each monograph is presented separately as a self-medication. Table 1 lists representative topical drugs that have been shifted from prescription to OTC status.

General Information for all OTC Topical Products

1. Read all of the labels on the package before using this product. If you have any questions regarding this medicine, ask your pharmacist or doctor.
2. Use only as directed. Do NOT use more often than recommended on the product's label.
3. While any medicine can cause side effects, most people experience few or none. However, if the medicine is bothering you and causing unusual reactions, call your doctor or pharmacist.
4. Be sure to tell your pharmacist about allergies you have to any medicine before selecting over-the-counter products.
5. Call your doctor if you develop a skin rash, hives or itching, swelling of the face or difficulty in breathing while using this medi-

Table 1
Representative Topical Drugs Shifted From Rx to OTC Status*

Ingredient (Shifted by:)**	Dose (Adult)	Indication	Example (Trade Name)
Clotrimazole (NDA)	Topical 1%	Antifungal	Lotrimin/AF
Clotrimazole (NDA)	Vaginal 1%	Antifungal	Gyne-Lotrimin
	Vaginal 100 mg		and Mycelex 7
Dyclonine (Panel)	Lozenge 3 mg	Anesthetic	Sucrets
Hydrocortisone (Panel)	Topical 0.5-1%	Antipruritic	Bactine
Miconazole (Panel)	Topical 2%	Antifungal	MicaTin
Miconazole (Panel)	Vaginal 2%	Antifungal	Monistat 7
	Vaginal 100 mg	Antifungal	
Oxymetazoline (Panel)	Nasal 0.05%	Decongestant	Afrin
Oxymetazoline (NDA)	Eye 0.025%	Decongestant	Ocuclear
Permethrin (NDA)	Topical 1%	Pediculicide	NIX
Sodium Fluoride (Panel)	Rinse 0.05%	Dental rinse	ACT
Stannous Fluoride (Panel)	Gel 0.4%	Dental rinse	Gel-Tin
Stannous Fluoride (Panel)	Rinse 0.1%	Dental rinse	Stan Care
Xylometazoline (Panel)	Nasal 0.1%	Decongestant	Otrivin

*Systemic drugs were covered in Part II of this series.
**Panel=FDA Advisory Panel on OTC Drugs. NDA=Shifted via New Drug Application mechanism.

cine. There are signs of an allergic reaction.

6. Store your medicines in a cool, dry place.

7. Do NOT use or keep outdated medicines. The expiration date should be printed on the package by the manufacturer.

8. Keep all medicines out of the reach of children.

9. In case of accidental ingestion by a child, call your doctor or poison control center immediately.

Patient Counseling for OTC Topical Decongestants

1. This medicine is used for temporary relief of nasal congestion or stuffiness from colds, hay fever and sinusitis.

2. Do NOT exceed the recommended dosage; burning, stinging, or increased nasal discharge may occur.

3. Do NOT use this medicine for more than 3 consecutive days. If nasal congestion continues, call your doctor.

4. Do NOT use the adult strengths of this medicine in children under 6 years of age, or the child strength in children under 2 years of age, unless directed by your doctor.

5. Keep all medicine containers tightly closed.

6. Do NOT use the solution if it is discolored.

7. The use of the dropper or spray bottle by more than one person may spread infections.

Proper Use of Nose Drops

1. Blow your nose gently just before using this medicine.

2. Squeeze the rubber bulb on the dropper to draw up 2 to 3 drops of medicine.

3. Sit in a chair with your head tilted back.

4. Insert the dropper into one nostril and squeeze the medicine into your nose. Repeat it in your other nostril.

5. Then lean your head forward toward your knees. Inhale and hold your breath for a few seconds.

6. Be extra careful not to touch the side of

the dropper to the inside of your nose.

7. After use, rinse the dropper with hot water, wipe it clean and carefully replace it into the bottle.

Proper Use of Nose Sprays

1. If the product is a metered pump, it must be primed several times when first opened.
2. Blow your nose gently just before using.
3. Hold your head upright to spray.
4. Remove the protective cap and insert the nosepiece into one nostril, pointing it slightly inward.
5. Administer 2 to 3 sprays as directed on the bottle, inhaling as you are squeezing the container or using the pump.
6. Repeat in your other nostril.
7. After use, rinse the nasal tip with hot water, wipe it clean and replace the protective cap.
8. Do NOT share the spray unit with another person.

Patient Counseling for OTC Ophthalmic Decongestants

1. This medicine is used to remove redness of the eye due to minor eye irritation.
2. Most people do not experience side effects from this product, but sometimes mild stinging or temporary blurred vision occur.
3. If you experience eye pain, changes in vision, continued redness or irritation of the eye or the condition persists for 3 days or worsens, STOP using the eye drops and consult your doctor.
4. Do NOT exceed the recommended dosage.
5. Do NOT use these eye drops if they have changed color, are cloudy or contain crystals.
6. Do NOT use this medicine without checking with your doctor if you have glaucoma.
7. Do NOT use while wearing contact lenses.
8. Do NOT use in children under 6 years of age unless directed by your doctor.

Proper Use of Eye Drops

1. Wash your hands with soap and water before using the eye drops.
2. To apply the drops, gently pull your lower eyelid downward to form a pouch.
3. Tilt your head backward, hold the dropper tip above your eye, and place 1 or 2 drops inside your lower lid.
4. Do NOT touch the dropper tip to any surface.
5. Release your lower lid. Try not to blink for a few seconds. Replace the cap on the bottle and store it out of the reach of children.
6. Do NOT rinse the dropper. You may contaminate the medicine.

Patient Counseling for OTC Oral Anesthetics

1. This medicine is used for temporary relief of occasional minor irritation, pain, sore mouth or sore throat.
2. The lozenge should be dissolved slowly in your mouth. Do NOT chew or swallow the lozenge whole.
3. The spray should be used in your mouth or throat as directed on the product label.
4. Possible side effects from this medicine include numbness of the mouth and throat.
5. If sore throat is severe, lasts for more than 2 days, is accompanied or followed by fever, headache, rash, nausea or vomiting, call your doctor.
6. Do NOT give to children under 2 years of age unless directed by your doctor.

Patient Counseling for OTC Fluoride Mouth Rinses

1. This medicine is used to control cavities when water supplies are low in fluoride content.
2. Rinse your mouth after brushing, flossing, and prior to sleep.
3. Spit out any excess. Do NOT SWALLOW.
4. Do NOT eat, drink or rinse your mouth for 30 minutes after using.
5. Do NOT dilute this rinse in a glass; use plastic or the cup supplied by the manufacturer.

Table 2
Potential Prescription to OTC Switch Drugs

Generic Name	Trade Name	Indication
Acyclovir	Zovirax	Herpes simplex
Astemizole	Hismanel	Allergy
Azatadine	Optimine	Allergy
Benzonatate	various	Antitussive
Butaconazole	Femstat	Fungal infections
Carisoprodol	Rela, Soma	Muscle spasm
Chloramphenicol, etc.	Chloromycetin, etc.	Eye infection
Chloestyramine	Questran	Cholesterol lowering
Chlorzoxazone	Paraflex	Muscle spasm
Cimetidine	Tagamet	Heartburn
Clotriazole lozenges	Cotrimin	Thrush
Colestipol	Colestid	Cholesterol lowering
Corticosteroids, nasal	Beconase, etc.	Allergy
Cromolyn inhaler	Intal	Asthma
Cromolyn nasal	Nasalcrom	Allergy
Cromolyn eye	Opticrom	Allergy
Cromolyn oral	Gastrocrom	Gastritis
Cyclobenzaprine	Flexaril, etc.	Muscle spasm
Cyproheptadine	Periactin, etc.	Itching
Dexchlorpheniramine	Polaramine	Allergy
Dicyclomine	Bentyl, etc.	Irritable bowel syndrome
Diflunisal	Dolobid, etc.	Pain
Econazole	Spectazole	Fungal infections
Epinephrine injection	EpiPen	Insect bites/stings
Erythritol dinitrate	Cardilate, etc.	Angina
Erythromycin topical	various	Acne
Estrogen/progestin	various	Hormone replacement
Famotidine	Pepcid	Heartburn
Fenoprofen	Nalfon, etc.	Pain
Hydroxyzine	Atarax, etc.	Allergy
Ibuprofen topical	various	Muscle/joint pain
Indomethacin topical	various	Muscle/joint pain
Iprotropium	Atrovent	Asthma
Isosorbide dinitrate	Isordil	Angina
Ketoconazole topical	Nizoral	Fungal infections
Ketoprofen	Orudis	Pain
Lindane	Kwell, etc.	Pediculicide
Loratidine	Claritin	Allergy
Metaproterenol	Alupent, Metaprel	Asthma
Methenamine	Mandelamine, etc.	Urinary tract infections
Methocarbamol	Robaxin, etc.	Muscle spasm
Metoclopramide	Reglan, etc.	Non-ulcer dyspepsia
Minoxidil, topical	Rogaine	Male-pattern baldness
Naproxen sodium	Anaprox	Pain

Table 2 cont'd

Nicotine gum	Nicorette	Smoking deterrent
Nicotine patch	Nicoderm, etc.	Smoking deterrent
Nitroglycerin S.L.	Nitrostat	Angina
Nizatidine	Axid	Heartburn
Nystatin	Mycostatin, etc.	Fungal infections
Orphenadrine	Norflex, etc.	Muscle spasm
Phenazopyridine	Pyridium, etc.	Urinary analgesic
Piroxicam topical	Feldene	Muscle/joint pain
Podofilox	Condylox	Genital warts
Promethazine oral	Phenergan, etc.	Antitussive
Promethazine rectal	Phenergan, etc.	Antiemetic
Propantheline	Probanthine, etc.	Irritable bowel syndrome
Propranolol	Inderal, etc.	Stage fright
Ranitidine	Zantac	Heartburn
Sucralfate	Carafate	Ulcers
Sulfacetamide eye	Sulamyd, etc.	Eye infections
Sulindac	Clinoril, etc.	Arthritis
Sumatriptin	Imitrex	Migraine
Terbutaline	Brethaire	Asthma
Terconazole	Terazol	Fungal infections
Terfenadine	Seldane	Allergy
Theophylline	various	Asthma
Thiazide diuretics	various	Hypertension
Ticonazole	Trosyd, Vagistat	Fungal infections
Tolmetin	Tolectin	Arthritis
Tretinoin	Retin A	Acne
Trimethobenzamine	Tigan	Antiemetic

6. Possible side effects from this medicine include excess saliva, nausea, vomiting, stomach pain, diarrhea, tooth staining.

7. Call your dentist if your teeth become mottled or stained.

8. Do NOT use if drinking water has a fluoride content greater than 0.7 parts per million (ppm).

9. Do NOT use the 1 mg rinse product in children under 6 or when the drinking water fluoride content is equal to or greater than 0.3 ppm.

10. Do NOT use if you are on a low salt diet without first checking with your dentist.

11. Gum tissue may be sensitive to some flavors or the alcohol content of this medicine.

12. If more than one ounce is accidentally swallowed, give several glasses of milk and contact your doctor or poison control center for instructions.

Patient Counseling for OTC Topical Antifungals

1. This medicine is used to treat fungal infections such as athlete's foot, jock itch, and ringworm.

2. Wash your hands before and after using this medicine.

3. Wash the skin area with soap and water and pat dry before using this medicine.

4. Apply a small amount of medicine over the affected area morning and night or as directed by your doctor.

5. For athlete's foot, pay special attention to the areas between your toes. It is best to wear well-ventilated shoes and to change your socks every day.

6. Athlete's foot and ringworm should clear up in 4 weeks and jock itch within 2 weeks. If your condition persists or worsens, or if you have a constant irritation, such as burning or itching that was not present before you started this medicine, call your doctor.

7. If you have diabetes or decreased circulation, consult your doctor before using this product.

8. Apply with caution to blistered or raw skin, oozing skin, or skin over a deep puncture wound.

9. Do NOT apply other creams, lotions or cosmetics on top of or underneath this medicine.

10. Do NOT use this medicine in children under 2 years of age unless directed by your doctor.

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SEARLE

Patient Counseling for Vaginal Antifungals

1. This medicine is used to treat vaginal candidiasis ("yeast") infections after diagnosis by a doctor. If this is the first time you have had vaginal itch and discomfort, consult your doctor.

2. If a doctor has previously diagnosed the same symptoms as a yeast infection, use the medicine as directed for 7 consecutive days.

3. Follow the instructions for proper use enclosed in the package. Insert high into the vagina except during pregnancy.

4. Complete the full course of therapy. Use continuously, even during your menstrual period.

5. If symptoms persist longer than 7 days or worsen, or if you have a constant irritation, such as burning or itching that was not present you started this medicine, call your doctor.

6. Diabetes, chronic antibiotic therapy, pregnancy, steroid use and oral contraceptive use may cause chronic and recurrent yeast infections.

7. Refrain from sexual intercourse during treatment, or your male partner should use a condom to avoid the risk of infection.

8. Wear a sanitary napkin to prevent staining of clothing due to seepage or leakage. Do not wear a tampon as it may absorb the medicine and interfere with its action.

How to Use Vaginal Suppositories and Tablets

1. Wash your hands with soap and water before and after using this medicine.

2. Cleanse the vaginal area and pat dry.

3. Remove the wrapper from the suppository/tablet.

4. Moisten the suppository/tablet with warm water.

5. If an applicator is used, place the small end of the suppository/tablet into the applicator.

6. Lie on your back with knees bent and slightly spread apart. Insert the barrel, containing the medicine, gently into your vagina with a downward motion as far as it will comfortably go.

7. Press the plunger gently to deposit the suppository/tablet into your vagina. With the plunger still pressed, remove the applicator.

8. Pull the applicator apart for easy cleaning.

9. Wash the two parts with soap and lukewarm water, then dry.

10. Do NOT boil or soak in very hot water.

11. Reassemble by gently pushing the plunger back into the barrel as far as it will go.

How to Use Vaginal Creams

1. Wash your hands with soap and water before and after using this medicine.

2. Follow any directions for use provided

by the manufacturer.

3. To open the tube, puncture the tube with the point inside the cap. Screw the applicator onto the tube.

4. Squeeze the tube from the bottom until the plunger is extended to the appropriate mark for the prescribed dose.

5. Unscrew the filled applicator from the tube and insert the barrel gently into your vagina with a downward motion as far as it will comfortably go.

6. This is done easiest if you are lying on your back with your legs spread apart and your knees bent.

7. Push the plunger all the way to deposit the cream into the vagina.

8. Pull the applicator apart for easy cleaning.

9. Wash the two parts with soap and lukewarm water, then dry.

10. Do NOT boil or soak in very hot water.

11. Reassemble by gently pushing the plunger back into the barrel as far as it will go.

12. Place the cap on the tube and close tightly.

Patient Counseling for OTC Topical Anti-inflammatory Agents

1. This medicine is used for temporary relief of minor skin irritation, itching and rashes due to eczema, insect bites, poison ivy, oak or sumac; allergic inflammation from soaps, detergents, cosmetics or jewelry; and other skin irritations.

2. Apply a small amount of the medicine as a thin film over the affected area 3 or 4 times a day. Rub in gently.

3. The spray is best suited for hairy areas. Shake well before using. Hold the can upright about 6 to 8 inches from affected area. Spray for 2 to 3 seconds.

4. Wash your hands before and after using this medicine.

5. Washing the skin area with soap and water and patting dry before use may increase the effectiveness of this medicine.

6. If your condition persists longer than 7 days or worsens, or if you have a constant irritation, such as burning or itching that was not present before you started using this medication, call your doctor.

7. Do NOT apply other creams, lotions or cosmetics on top of or underneath this medicine.

8. Do NOT use near your mouth or eyes.

9. Do NOT use on children under 2 years of age unless directed by your doctor.

Patient Counseling for OTC Pediculicides

1. This medicine is used to treat head lice.

2. Wash your hands before and after applying this medicine.

3. This medicine is applied to the hair after is has been washed with your regular shampoo, rinsed and towel dried.

4. Saturate your scalp and leave on your hair for 10 minutes.

5. Then rinse it off immediately.

6. If lice are observed 7 days after the application of this medicine, repeat the treatment.

7. Use the special precision comb supplied with the medicine to remove dead lice and eggs after application.

8. Soak combs and brushes in hot water (above 130° F) for 5 to 10 minutes after each use.

9. At the time of treatment, all personal headgear, scarves, clothing, and bed linen should be laundered in hot water and dried in a clothes dryer, or dry cleaned.

10. Articles that cannot be laundered can be placed in a tightly sealed plastic bag for 2 weeks or sprayed with a product specifically for that use.

11. Rooms occupied by the infected person should be thoroughly vacuumed.

12. Possible side effects from this product include allergic skin irritation, rash, itching, burning, stinging, tingling, numbness, swelling, discomfort, or redness. If these occur, contact your doctor.

13. Do NOT use this medicine in or near your eyes or mouth.

14. Do NOT use on children under 2 years of age unless directed by your doctor.

15. Do NOT leave children unattended after applying this product on their head.

The Future of the Rx to OTC Switch Movement

While it is difficult to predict the future accurately, nearly every article on the OTC switch issue states that there will be a surge of current prescription-only drugs being brought to the OTC market.

If this occurs, it will not be through the review-monograph process. While there are a few drugs pending in this system, most potential candidates for switching either were not part of the review, or have come on the market after the panels completed their work.

Another reason is the distinct advantages that the New Drug Application (NDA) process affords manufacturers. Since 1984, holders of NDAs can obtain up to three years of exclusive marketing of prescription drugs switched to the OTC market. This is a tremendous incentive to the NDA holder whose prescription drug is nearing expiration of its patent. By proving to the satisfaction of FDA that the drug is safe for self-medication the manufacturer has several years to convince the public of the worthiness of its brand of the product. After that, competition becomes a problem.

In recent years, prescription drugs going off patent have lost their exclusive market share quickly. Oftentimes this drops to less than 20 percent in a few years. Therefore, economics and corporate viability will play a major role in the Rx to OTC switch future.

Drugs that have been suggested as candidates for switch from prescription to OTC status are listed in Table 2. Some may seem bizarre, some may appear as wishful thinking, and still others may be perceived as dangerous. These feelings may be based on personal perceptions that there are dangers and safety questions associated with the drugs listed.

Nonetheless, change and progress come about when old biases and prejudices are discarded. Many of the drugs listed are currently available without prescription in countries other than the United States with no apparent negative impact on the citizens of those countries.

Table 3
Prescription drugs in the U.S. that are OTC in Canada, Great Britain, and/or Australia

Astemizole	Metaproterenol
Cholestyramine	Methenamine
Cyproheptadine	Methocarbamol
Dicyclomine	Naproxen
Econazole	Nicotine Gum
Epinephrine inj.	Nystatin
Ibuprofen topical	Sucralfate
Isosorbide dinitrate	Sulfacetamide eye
	Terbutaline
Ketoconazole topical	Terfenadine
	Theophylline
Loratidine	Tripelennamine

As a point of reference Table 3 lists drugs that are prescription-only in the United States, but available without prescription in Canada, Great Britain and/or Australia. The Scandinavian countries and Germany have many more drugs available without prescription. The same could happen here.

Summary

The OTC drug product market-place is constantly changing. One viable component is the increasing number of OTC products that formerly required a prescription for purchase. This number is significant, and still increasing. Most new OTC drug product ingredients of the future will undoubtedly originate from within the prescription drug product category. Pharmacists who let the public know that they are willing and able to counsel them on self-medication product selection can help lessen the resulting loss of revenue to non-pharmacy outlets, and raise their own status in the community.

CORRESPONDENCE COURSE QUIZ

Advising Patients on "Switch" Drug Products
Part III: Counseling on Topical Drugs Switched from Prescription to OTC Status

1. The recommended time limit for self-medication with topical decongestants is:
   a. 3 days. c. 7 days.
   b. 5 days. d. 10 days.

2. The local anesthetic that has been switched to OTC status in a lozenge dosage form is:
   a. lidocaine. c. dyclonine.
   b. tetracaine. d. benzocaine.

3. The trade name for an OTC product containing the local anesthetic referred to above is:
   a. Chloraseptic. c. Cepastat.
   b. Halls. d. Sucrets.

4. All of the following are correct statements for counseling women who are self-treating vaginal yeast infections *except:*
   a. If this is the first time you have had vaginal itch and discomfort, consult your doctor before selecting an OTC product.
   b. If a doctor has previously diagnosed the same symptoms as a yeast infection, use this medicine as directed for 3 days.
   c. If symptoms persist longer than 7 days or worsen, or if you have constant irritation that was not present before you started to use this medicine, call your doctor.
   d. Wear a sanitary napkin to prevent staining of clothing due to seepage or leakage, but do not wear a tampon as it may absorb the medicine and interfere with its action.

5. After washing their hair with regular shampoo, persons using NIX to treat head lice should be told to saturate their scalp and leave the product on their hair for:
   a. 10 minutes. c. 30 minutes.
   b. 20 minutes. d. 60 minutes.

6. All of the following are correct statements for counseling on the proper use of nose drops *except* :
   a. Blow your nose gently just before using.
   b. Squeeze the rubber bulb on the dropper to draw up 8 to 10 drops of medicine.
   c. Sit in a chair with your head tilted back.
   d. Insert the drops into one nostril and squeeze the medicine into your nose. Repeat in other nostril.

7. OTC fluoride rinses should not be used if the drinking water has a fluoride content greater than:
   a. 0.007 ppm.
   b. 0.07 ppm.
   c. 0.7 ppm.
   d. 7 ppm.

8. All of the following are antifungals that have been switched from Rx to OTC status *except:*
   a. Gyne-Lotrimin.
   b. Monistat.
   c. Mycelex.
   d. Mycostatin.

9. Individuals self treating athlete's foot should pay special attention to the area:
   a. above the arch.
   b. around the ankles.
   c. between the toes.
   d. under the soles.

10. Which of the following has the greatest potential for being switched from Rx-only to OTC status in its oral, ophthalmic, nasal, and inhaler dosage forms?
   a. Cromolyn
   b. Dexamethasone
   c. Erythromycin
   d. Terbutaline

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What's Your Pharmacoeconomics I.Q.?

Test yourself! Answers at bottom of page.

1. Outpatient prescription medicines account for approximately what percent of total health care spending?
   a. 5% b. 10% c. 15% d. 20%

2. How many years of patent life typically remain once a new drug is approved for marketing?
   a. 17 b. 10-12 c. 3-5 d. 5-7

3. Which amount is the closest to the actual cost of dispensing a prescription in a full-service pharmacy?
   a. $2.00 b. $3.35 c. $6.00 d. $1.25

4. Out of every ten new drugs marketed, on average, how many achieve sufficient revenue to cover costs and make a profit?
   a. 8 b. 2 c. 6 d. 1

5. Considering drug prices and manufacturing wages in the U.S. & Mexico, how long do Mexicans work compared to Americans to pay for Rx drugs?
   a. same # hours b. Half as long c. more than twice as long

6. What is the current estimated cost of bringing a new drug to market?
   a. $175 million b. $359 million c. $500 million d. $100 million

7. Which component of health care costs are patients most aware of because they pay out of pocket?
   a. physician b. prescription c. hospital d. emergency room

8. What percent of sales, on average, is spent on research by research-intensive pharmaceutical manufacturers?
   a. 25 b. 16 c. 8 d. 11

9. Total health care expenditures have risen to almost 13% of GNP since 1960. How have pharmaceutical costs behaved as a % of GNP during that period?
   a. risen to 3% b. fallen to 0.5% c. held nearly constant under 1%

10. If pharmaceutical industry profits were eliminated, how much would this reduce total national health care costs?
    a. 3% b. 5% c. less than 1% d. 10%

Answers: 1 a. 5%; 2 d. 5-7; 3 c. $6.00; 4 b. 2; 5 c. more than twice as long; 6 b. $359 million; 7 b. prescription; 8 b. 16; 9 c. held nearly constant under 1%; 10 c. less than 1%

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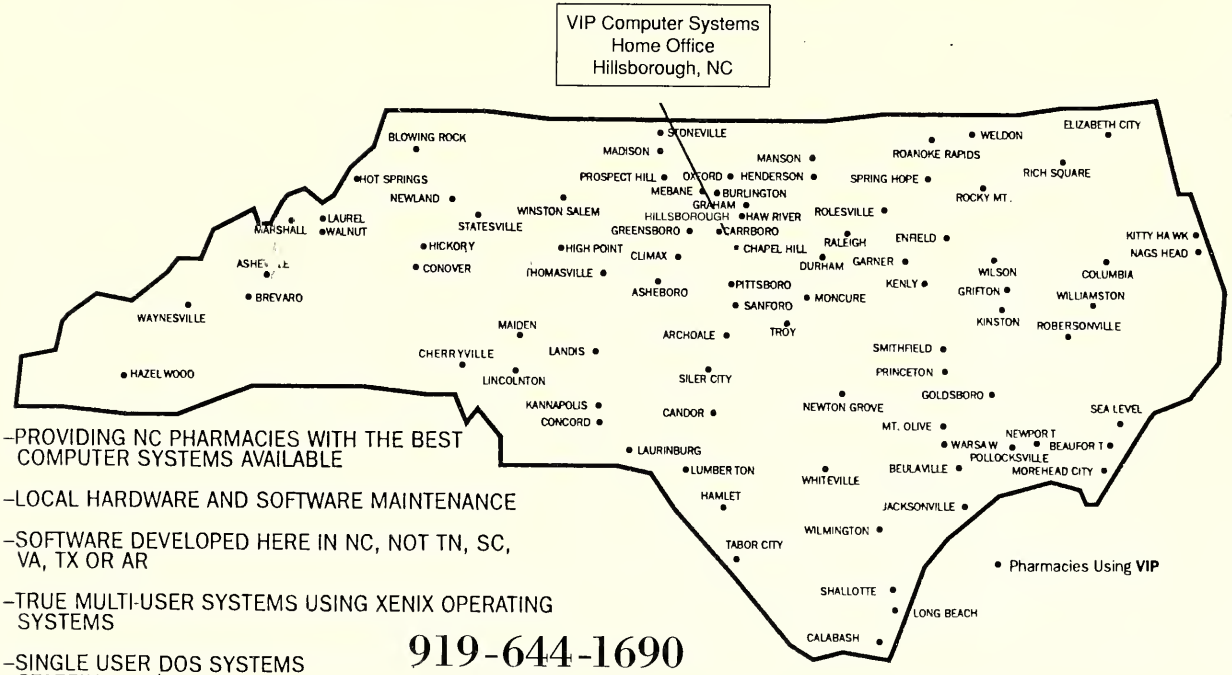

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M. Keith Fearing Jr., Manteo
1994 Pharmacist-of-the-Year
Story on page 5

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NORTH CAROLINA PHARMACEUTICAL ASSOCIATION

Officers

President
Joseph A. Edwards Jr.
2025 St. Mary's St.
Raleigh, NC 27608
919•833•0557

President Elect
Mickey W. Watts
P.O. Box 39
Concord, NC 28026
704•782•2194

Past President
W. Robert Bizzell
3423 Buena Vista Court
Kinston, NC 28501
919•527•6929

Journal Staff

Editor and Publisher
Alfred H. Mebane III

Associate Editor and Advertising Coordinator
Terri M. Little

Editorial Assistants
Erie C. Cocolas
Cathy H. Jordan

Business Manager
Betsy Mebane

NCPhA Office
P.O. Box 151
Chapel Hill, NC 27514
919•967•2237 or
800•852•7343

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PRESIDENT'S MESSAGE

JOIN OUR TEAM AND MAKE A DIFFERENCE

The North Carolina Pharmaceutical Association is alive and well and moving forward with great velocity to champion the cause of pharmacy in our state and our nation. We are blessed with a number of great pharmacist leaders who are committed to making pharmacy's voice heard, to embracing the changes in health care, and to expanding the practice of pharmacy in North Carolina. Now it is time for every member of NCPhA to stand tall and be counted—that means to get involved in telling the "pharmacy story," to get involved in unifying our profession through encouraging membership and participating in the many programs of our Association, and to get involved in political and community action.

Joseph A. Edwards Jr.
President NCPhA

It is no longer sufficient to sit back in our practices and let a few dedicated leaders do all the work—there is too much work to be done. We need to develop a powerful grassroots movement to spread the word that we will take responsibility for our patients' health and well-being. No health care professional is more qualified to do this. The problem is that too few people, especially those people who make the laws and regulations, know how valuable we are.

To paraphrase Martin Luther King, when we allow the pharmacy story to ring, when we let it ring from every city, we will be able to speed up that day when pharmacists will gain the power of greater responsibility for patient outcomes, the power of compensation for cognitive services, the power to be at the table where policy is made. Then we shall have the real respect we deserve.

Join our team and make a difference. Make a presentation to your local civic group. Request an appearance on a radio or television talk show. Make yourself available to health related volunteer services to your community. Become politically involved by supporting local candidates and by assisting in developing political agendas. Even better, run for public office. Ask to be on committees of NCPhA, participate in the Pharmacy Day in the North Carolina Legislature, or attend the Association's Annual Convention.

There are a thousand ways to get involved in telling the pharmacy story. In whatever way you can, contribute your talents and knowledge. Please get started now!

Keith, *center*, is presented with the Mortar & Pestle Award plaque by NCPhA Immediate Past President Rob Bizzell. Pictured with Keith is his wife Lib.

Family members joined Keith and Lib in making this an event to remember. Pictured with Keith and Lib are their son Malcolm and his wife Susan along with their children.

Previous Pharmacist of the Year Recipients: *back, from left,* Milton Whaley, William Randall, and John Henley. *Front, from left,* John Hood, Jack Watts, Jimmy Creech, Keith Fearing *(1994 recipient)* , Harold Day, Barney Paul Woodard, and Ralph Ashworth.

Fearing Honored as 1994 NC Pharmacist of the Year

M. Keith Fearing Jr., Manteo, was recognized as the 1994 North Carolina Pharmaceutical Association Pharmacist-of-the-Year at a dinner and program in his home town on August 20, 1994. Over 250 people from the coastal area and across the state met to honor Fearing for his contributions and years of service to his area, the state and pharmacy in North Carolina.

The Mortar-and-Pestle Dinner was held on Saturday night in a tent at Pirate's Cove Marina. A reception featuring Caribbean jazz by the local Missionary Stew Trio preceded the dinner. Speakers noted the many activities Fearing had participated in resulting in a much deserved reputation for interest in promoting the coastal region and the Manteo-Kill Devil Hills area in particular.

Among the program speakers was State Senator Marc Basnight, president pro tem of the NC Senate. Basnight commented that Fearing demonstrated he was the "man of the year" each day. He remembered how Fearing helped him when his father became ill. Basnight stated Fearing was "a friend and talent to the Outer Banks and one who dearly loves the Outer Banks." Dr. Wallace Harvey told ofmeeting the young Keith Fearing while on a fishing trip up from Atlanta and being convinced to set up his practice in Manteo. He also spoke about the three great extravaganzas in Keith Fearing's life; the day he was born, his 70th birthday party and this evening. He related some of the trials of owning one-half of a boat with Fearing.

Dr. Walter Holton, an early medical practitioner in the area and grandson of an Edenton pharmacist, said Keith Fearing was a role model for pharmacists, one who always had his family and his community as the first things in his heart. Another speaker, Roy Clark, CEO of East Carolina Bank, talked about the contributions Fearing had made to his bank board and the area. He remarked that the Pirate's Cove Marina basically was sitting on reclaimed marsh land, something that would not be possible today. He told of Fearing's profit formulae, in which he claimed to clear 5% on the sale of a 5¢ item for 10¢. Malcolm Fearing, Keith's son, talked about his father, who was the only pharmacist in the area for many years. He thanked his father for the family values he had instilled in him.

The NCPhA Mortar-and-Pestle Award, was presented by Immediate Past President W. Robert Bizzell. The moderator of the program was NCPhA President Joseph A. Edwards Jr., who read letters of congratulations from U.S. House Majority Leader Richard A. Gephardt of Missouri and NC Congressman Martin Lancaster. R.W. Buell, mayor of the city of Manteo, welcomed the out-of-town visitors to the area. The Reverend W. Millard Stevens, former pastor of the United Church of Christ in Burlington, N.C., delivered the invocation. Dr. Stevens, it was noted, married Keith and Lib in 1948 and baptized their daughter Dean in 1952.

On Friday night, the out-of-town guests were treated to a reception on the grounds of the Lost Colony outdoor pageant, a guided tour of the backstage area and the performance featuring Barbara Hird as Elizabeth I. A good omen was observed as a shooting star went across the darkened sky during the first act. On Sunday, out-of-towners took a cruise on the Crystal Dawn across the sound to a brunch and again, an omen was present. On the return trip to the marina, a school of dolphin playfully greeted the ship, obviously knowing that M. Keith Fearing Jr., the 1994 Pharmacist-of-the-Year was aboard.

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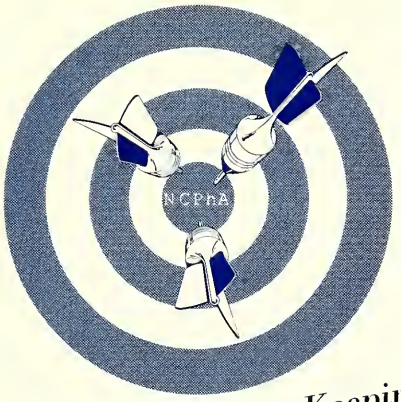

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Virginia Clay
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Grover Creech
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Tim Liggins
PO Box 4121
Glen Raven, NC 27215

Don Marsh, *Cochairman*
Mountain AHEC
501 Biltmore Avenue
Asheville, NC 28801

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Medical Center Pharmacy
274 N. Graham-Hopedale Rd.
Burlington, NC 27215

Dr. Tom Miya
990 Cleland Drive
Chapel Hill, NC 27514

Nancy Moore
3026 Quincemoor Road
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Chapel Hill, NC 27599

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102 Collums Road
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PO Box 816
Mocksville, NC 27028

Ron Maddox
415 Keith Hills Road
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1005 Park Avenue
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Martha Peck
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917 Kimball Drive
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A. Wayne Pittman
UNC School of Pharmacy
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Chapel Hill, NC 27599

Steve Rexroad
3200 Beechleaf Drive #801
Raleigh, NC 27604

Milton Whaley
PO Box 51099
Durham, NC 27717

Raymond Wong
250 South Estes Drive #111
Chapel Hill, NC 27514

Membership Committee

Randy Ball, *Chairman*
141 Dogwood Lane
Wake Forest, NC 27587

Kevin Almond, *Cochairman*
UNC School of Pharmacy
CB #7360 Beard Hall
Chapel Hill, NC 27599

Rebecca Chater, *Liaison*
608 Endsleigh Ct.
Fayetteville, NC 28311

Henry Smith, *Liaison*
PO Box 31
Farmville, NC 27828

Tad Adams
Zebulon Drug Company
303 N. Arendell Avenue
Zebulon, NC 27597

Marcia Anderson
114 Ivy Brook Lane
Chapel Hill, NC 27516

Paul Ashworth
101 Severn Court
Cary, NC 27511

Michelle Bozovich
3615 Castleton Road
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Dave Cox
3601 Whitehill Drive
Charlotte, NC 28269

Steve Dedrick
4416 Turnberry Circle
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65 Live Oak Lane
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Ocean Isle Beach, NC 28469

Al Lockamy
6708 Candlewood Drive
Raleigh, NC 27612

Brandon Maddox
208 Finley Golf Course Rd.
Chapel Hill, NC 27514

Mary Lee Mazarick
2100 Chrisdale Ct.
Raleigh, NC 27607

Russ Phipps
10 Winslow Court
Durham, NC 27713

Charles Pulliam
UNC School of Pharmacy
CB #7360 Beard Hall
Chapel Hill, NC 27599

Walt Saunders
300-D N. Lindell Road
Greensboro, NC 27403

John Setzer
2662 Wyman Road
Winston-Salem, NC 27106

Dan Teat
PO Box 883
Buies Creek, NC 27506

Joe Whitehead
1909 Hunting Ridge Road
Raleigh, NC 27615

W.H. Wilson
2000 Fairview Road
Raleigh, NC 27608

Gene Woodall
Raleigh Community Hospital
3400 Wake Forest Road
Raleigh, NC 27609

National Legislation Committee

Whit Moose, *Chairman*
Moose Drug Company
PO Box 67
Mount Pleasant, NC 28124

Fred Eckel, *Cochairman*
UNC School of Pharmacy
CB #7360 Beard Hall
Chapel Hill, NC 27599

John Mitchener III, *Liaison*
PO Box 6
Edenton , NC 27932

Jim Anderson
PO Box 68697
Virginia Beach, VA 23455

Sam Burrus
24 Park Street
Canton, NC 28716

Bill Campbell
136 Meadow Run Drive
Chapel Hill, NC 27514

Doug Dove
204 Asheville Ave., Ste #20
Cary, NC 27511

Darrell Estes
215 Barberry Place
Mount Airy, NC 27030

Jerry Gaylord
1036 General Lafayette Blvd.
West Chester, PA 19382

Stan Haywood
PO Box 1447
Asheboro, NC 27203

Frank Hemingway
PO Box 211
Bethel, NC 27812

Allen Johnson
PO Box 432
Mt. Airy, NC 27030

Tim Kurek
951 Aviation Pkwy.
Morrisville, NC 27560

Jim Matthews
212 Arrowhead Drive
Clinton, NC 28328

Jim McAllister
5034 Butternut Road
Durham, NC 27707

Phil Sasser
1207 Kingston Ridge Road
Cary, NC 27511

Ron Small
NC Baptist Hospital
300 S. Hawthorne Road
Winston-Salem, NC 27103

Bill Randall
Box 999
Lillington, NC 27546

Nominations Committee

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PO Box 39
Concord, NC 28026

Bill Post
8380 NC 87
Reidsville, NC 27320

Robert Worley
269 Luby Smith Road
Princeton, NC 27569

LaRue Dedrick
4416 Turnberry Circle
Durham, NC 27712

Jim Thompson
8400 Old Well Lane
Raleigh, NC 27615

Frank Yarborough
Route 1 Box 225C
Sims, NC 27880

Kathy Fuquay
1630 Staley Road
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Fearrington Village
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Brody 4N-80
Greenville, NC 27858

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PO Box 1586
Morehead City, NC 28557

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5502 Bradshaw Quarry Rd.
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Joey Pippin
221 B Cape Point Lane
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Rebecca Chater, *Liaison*
608 Endsleigh Ct.
Fayetteville, NC 28311

Larry Long
6913 Wooden Rail Lane
Summerfield, NC 27358

A. Wayne Pittman
UNC School of Pharmacy
CB #7360 Beard Hall
Chapel Hill, NC 27599

Charles Delaney
Rt. 3 Box 327
Advance, NC 27006

Joe Norwood
UNC School of Pharmacy
CB #7360 Beard Hall
Chapel Hill, NC 27599

Benny Ridout
Box 88
Morrisville, NC 27560

Martha F. Epps
3127 N. Main Street
Hope Mills, NC 28348

Dwight Owens
500 Haven Ridge Road # 5
Winston Salem, NC 27104

Gill Ripley
520 West Main Street
Elkin, NC 28621

Gary Glisson
Ward Drug Store
117 Church Street
Nashville, NC 27856

Angela Owens
500 Haven Ridge Road # 5
Winston Salem, NC 27104

Debra Smith
3200 E. Ford Rd.
Charlotte, NC 28205

Jane S. Thompson
805 Woodcrest Drive
Winston-Salem, NC 27104

Peggy Yarborough
Rt. 1 Box 225C
Sims, NC 27880

John Zatti
5 Porchlight Ct.
Durham, NC 27707

Lori Wilson
822 E. Graham Street
Shelby, NC 28150

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Durham, NC 27712-9466

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3942 Bristol Road
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5031 Raintree Rd
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Buies Creek, NC 27506

Ross Brickley, *Cochairman*
15 Seven Oaks Drive
Clayton, NC 27520

Stephen Eckel
206 Cameron Avenue
Chapel Hill, NC 27514

Nellie Jones
6120 Mal Weathers Road
Raleigh, NC 27603

Mike Overman, *Liaison*
Lord's Drug Store
915 Merrimon Avenue
Asheville, NC 28804

Larry Elliott
Medipack
130-A Stratford Court
Winston-Salem, NC 27103

Kim Kluttz
PO Box 591
Granite Quarry, NC 28072

Jim Bryant
128 Squire Drive
Winterville, NC 28590

Connie Fleming
PO Box 1090
Buies Creek, NC 27506

June H. McDermott
UNC School of Pharmacy
CB #7360 Beard Hall
Chapel Hill, NC 27599

Steve Bullock
107 Clubstone Lane
Cary, NC 27511

R.E. Fuller
245 Olive Branch Road
Durham, NC 27703

Tom Oakley
701 N. Main Street
Roxboro, NC 27573

Don Carter
609 S.E. Maynard Road
Cary, NC 27511

Craig Herman
7001 Sandringham Drive
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Gregory Wade Pait
3827 Planter's Trail
Hillsborough, NC 27278

Brent Clevenger
PO Box 561235
Charlotte, NC 28256

Lorraine Hiester
1724 Salt Marsh Circle SW
Ocean Isle Beach, NC 28469

Jeff Peterson
207 Glen Abbey Drive
Cary, NC 27513

Bob Phillips
PO Box 1824
Buies Creek, NC 27506

Beth Skinner
7608 Harborough Ct.
Raleigh, NC 27613

Kristen Thomas
P.O. Box 1752
Buies Creek, NC 27506

Gary Salamido
Glaxo Inc.
5 Moore Drive
RTP, NC 27709

Public Health Department Committee

Ken Updegrave, *Chairman*
1230 Currituck Drive
Raleigh , NC 27609

Karen Griffin
3784 Hayden Drive
Charlotte, NC 28269

Prentice Monroe
2403 Brenda Drive
Raleigh, NC 27610

Hazel Post, *Cochairman*
8380 NC 87
Reidsville, NC 27320

Joyce Grubb
Rt. 3 Box 622A
West Jefferson, NC 28694

Connie D. Nance
124 Wilander Ct.
Cary, NC 27511

Rob Bizzell, *Liaison*
Realo Discount Drug Store.
300 N. Queen Street
Kinston, NC 28501

Van H. King III
122 North 25th Street
Wilmington, NC 28405

Charles D. Reed
1072 Ridge Drive
Clayton, NC 27520

John Andrews
1305 S. Hawthorne Road
Winston-Salem, NC 27103

Laura McArthur
121 Highland Drive
Buies Creek, NC 27506

James Thomas
1902 Rand Road
Wilson, NC 27893

John Bullock
2212 Lynnwood Drive
Wilmington, NC 28403

Steve Melamut
202 Westbury Drive
Chapel Hill, NC 27516

Ray Wolf
Burroughs Wellcome
3030 Cornwallis Road
RTP, NC 27709

Emil Cekada
218 W. College Street
Mount Olive, NC 28365

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805 Long Drive
Rockingham, NC 28379

George Willets
3527 Kirby Smith Drive
Wilmington, NC 28409

Cindy Dollar
PO Box 7401
Asheville, NC 28802

Seymour P. Rubin
PO Box 1629
Newport, NC 28570

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Raleigh, NC 27604

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2000 Fairview Road
Raleigh, NC 27608

Joe Creech
PO Box 535
Selma, NC 27576

Walter Davis
2801 Brentwood Road
Raleigh, NC 27607

Keith Layne
129 Farrell Street
Eden, NC 27288

Bob Lewis, *Liaison*
719 Sandridge Road
Charlotte, NC 28203

Bill Post
8380 NC 87
Reidsville, NC 27320

Ron Small
NC Baptist Hospital
300 S. Hawthorne Road
Winston-Salem, NC 27103

Jay Barefoot, *Advisor*
3201 McKinnon Drive
Wilmington, NC 28409

Cynthia Berry, *Advisor*
10 Lynnwood Road
Asheville, NC 28804

Ken Burleson, *Consultant*
810 Fairgrove Church Road
Hickory, NC 28601

Billy Cameron, *Advisor*
100 Park Ave.
Sanford, NC 27330

Bob Crocker, *Advisor*
PO Box 690
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Steven Evans, *Advisor*
PO Box 484
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Keith Fearing, *Consultant*
PO Box 1048
Manteo, NC 27954

Bill Harris, *Advisor*
Rt. 3 Box 121-A
Apex, NC 27502

John Henley, *Consultant*
200 S. Main Street
Hope Mills, NC

Johnny Hogg, *Advisor*
Service Drug Store
PO Box 0
Pinetops, NC 27864

Jimmy Jackson, *Consultant*
8380 Capitol Blvd.
Raleigh, NC 27661

Tom Jones, *Advisor*
PO Box 271
Garner, NC 27529

Greg Jones
Knightdale Pharmacy
PO Box 370
Knightdale, NC 27545

Larry Long, *Consultant*
6913 Wooden Rail Lane
Summerfield, NC 27358

Bill Mast, *Consultant*
1851 Parker Lane
Henderson, NC 27536

Teresa H. Moore, *Advisor*
165 Home Road
Salisbury, NC 28417

Dana Joetta Oakes, *Liaison*
210 Terrace Pl
Lincolnton, NC 28226

Benny Ridout, *Consultant*
Box 88
Morrisville, NC 27560

Ashley Riggan, *Advisor*
PO Box 1270
Buies Creek, NC 27506

Seymour Rubin, *Advisor*
PO Box 1629
Newport, NC 28570

Billy Smith, *Advisor*
1375 Hwy 24
Newport, NC 28750

Carl Taylor, *Advisor*
PO Box 69
Ahoskie, NC 27911

Paul Walker
1479 Little Hill Road
Newton, NC 28658

Robert Whatley, *Advisor*
Brevard Pharmacy
Dogwood Plaza
Brevard, NC 28712

Barney Paul Woodard, *Consultant*
PO Box 5
Princeton, NC 27569

Third Party Committee

Roy Hill, *Chairman*
110 Stonewood Drive
Cherryville, NC 28021

Jim Blount, *Cochairman*
Blount's Mutual Drugs, Inc.
PO Box 209
Edenton, NC 27932

John Mitchener, *Liaison*
PO Box 6
Edenton, NC 27932

Tad Adams
Zebulon Drug Company
303 N. Arendell Avenue
Zebulon, NC 27597

Ralph Ashworth
Ashworth Rexall Drugs
PO Box 98
Cary, NC 27511

Andy Barrett
4000 Old Wake Forest Rd.,
Ste 101
Raleigh, NC 27609

Phillip Bozovich
3615 Castleton Road
Greensboro, NC 27406

Christopher Fievet
PO Box 5546
High Point, NC 27262

Ronald Geer
4937 Broad Hollow Drive
Charlotte, NC 28226

David Gowerty
1030 Jones Wynd
Wake Forest, NC 27587

James Hall
106 Cedarwood Lane
Carrboro, NC 27510

Alisa Hill
110 Stonewood Drive
Cherryville, NC 28021

Greg Jones
Knightdale Pharmacy
PO Box 370
Knightdale, NC 27545

Zeb Keever
112 Saddletree Road
Lincolnton , NC 28092

Larry Kiziah
6081 Startown Road
Maiden, NC 28650

Ann Koeniguer
6092 Windsor Farm Road
Summerfield, NC 27358

Jay Major
861 Jeffreys Road
Rocky Mount, NC 27804

Joe Minton
Colonial Pharmacy, Inc.
704 E. Main Street
Murfreesboro, NC 27855

James R. Oakley
Rt. 5 Box 181-AA
Washington, NC 27889

Benny Ridout
Box 88
Morrisville, NC 27560

Vince Stevens
8408 Inverness Way
Chapel Hill, NC 27516

Larry Thomas
Thomas Drug Co.
PO Box 245
Dunn, NC 28335

Alicia Wilson
111 Rosebrooks Drive
Cary, NC 27513

Danny Yates
412 Island Drive
Beaufort, NC 28516

John Zatti
5 Porchlight Ct.
Durham, NC 27707

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NORTH CAROLINA PHARMACEUTICAL ASSOCIATION'S POSITION ON HEALTH CARE REFORM

The Executive Committee of the North Carolina Pharmaceutical Association endorsed a health care reform position statement as a unified representation of the opinions of the North Carolina pharmacy community. A task force of pharmacists from the 1994 Pharmacy Leaders Forum, chaired by Dean Ronald Maddox of the Campbell University School of Pharmacy, developed this position statement. Other task force members were: Steve Caiola, Dan Garrett, Jimmy Jackson, Al Lockamy, Jr., Larry Long, Bill Mast, Don Peterson, and Jeff Peterson.

The statement is as follows:

As the world leader in health care research expenditures, the United States offers the most extensive, highest quality health care system in the world. Yet, many Americans do not have access to needed health care services. To assist North Carolina's leaders in dealing with the health care concerns of our state, the North Carolina pharmacy community has developed the following principles, to maximize benefits that patients receive from their medications and pharmacists.

1. Medications and pharmaceutical care (pharmacists' services) should be included as a core benefit in a reformed health care system.

2. All patients should have the right to choose his/her own provider of medications and pharmacists' services. Pharmacies should have the right to participate in the health plans of their choice under equally applied terms and conditions.

3. All pharmacist providers must have access to the pharmaceutical marketplace and to discounts offered by pharmaceutical manufacturers and distributers. In addition to discounts for volume, discounts on the basis of economic advantage offered by the manufacturer must be available to all purchasers, including those in the community pharmacy setting.

4. Information and administrative systems should be included that enhance patient care, eliminate needless bureaucracy, and provide patients and providers with the price and quality information needed to make informed patient-care decisions.

5. Pharmacists' services and proper medication management can generate significant savings to a reformed health care system.

6. Quality assurance programs administered by pharmacists can significantly improve the effectiveness of medications in achieving positive patient outcomes.

7. Pharmacy providers must be able to negotiate with health benefit plans and to ensure patient access to community retail pharmacy services.

I. MEDICATIONS AND PHARMACISTS' SERVICES AS A CORE BENEFIT

Position:

Medications and pharmaceutical care (pharmacists' services) should be included as a core benefit in a reformed health care system.

Rationale:

Access to pharmaceuticals and pharmaceutical care is a necessary component of any health care reform proposal that strives to control costs and provide quality care. Appropriately managed pharmaceutical therapy improves patients' quality of life and lowers overall health care expenditures by reducing the need for more costly services (e.g. hospitalizations, long term care, surgery).

Discussion:

Medications are used to successfully diagnose, prevent and treat major acute and chronic illnesses and slow or halt the progression of more serious conditions. Although prescription medications represent only 7 to 10 percent of the total health care dollar, when utilized properly their financial impact is far more significant.

Patients often fail to gain optimal effectiveness from pharmaceuticals under the current system because of a lack of access and, in some cases, poorly coordinated care. Also, a higher portion of prescription costs are borne out-of-pocket by patients in comparison with other health care services. This results in problems in obtaining medications for those without adequate insurance coverage. In addition, the U.S. spends enormous sums of money on medicines that are used inappropriately or to treat illnesses that result from medicines that are used inappropriately.

A pharmaceutical benefit in a reformed health care system should acknowledge that individual patients have different needs for pharmaceutical products and services. Pharmacists, in collaboration with physicians, patients and other providers of health care services, can work to manage and improve the drug-use process and maximize therapeutic outcomes in patients according to their individual needs for care. An effective pharmaceutical care program with appropriate competitive incentives for providers is a reasonable and cost-effective component of a reformed health care delivery system.

II. FREEDOM OF CHOICE

Position:

All patients should have the right to choose their own provider of medications and pharmacists' services. Pharmacists should have the right to participate in the health plans of their choice under equally applied terms and conditions.

Rationale:

Patients want to select the pharmacist who will work with them in the proper utilization of their medications. In a recent poll of 1,003 adults, 84% said they want to keep the right to select their own pharmacy.[1]

Discussion:

Pharmacists are highly educated professionals who provide extensive prescription drug services. These pharmacists counsel patients on treating minor injuries and advise patients on the use of over-the-counter drugs. Pharmacists are available seven days a week, 365 days a year, often day or night, without an appointment. Because of this accessibility, pharmacists are often the health professionals to whom patients address their health problems. Some health care reform proposals risk reducing patient access to pharmacist by consolidating pharmacies into a few high volume facilities. It would be counterproductive for a health care reform system to deprive individuals of their relationship with local pharmacists.

There is no credible evidence that a mandatory managed care pharmacy benefit would substantially reduce costs of providing pharmacy care or maintain the quality of existing care services provided by the nation's network of over 60,000 local pharmacies.

III. EQUAL ACCESS TO THE PHARMACEUTICAL MARKETPLACE

Position:

All pharmacist providers must have access to the pharmaceutical marketplace and to discounts offered by the pharmaceutical manufacturers and distributers. In addition to discounts for volume, discounts on the basis of economic advantage offered by the manufacturer must be available to all purchasers, including those in the community pharmacy setting.

Rationale:

Pharmaceutical purchasers continue to obtain discounts based on volume, prompt

payment, and single-site delivery. In addition, large institutional and group purchasing organizations obtain discounts that reflect the purchaser's ability to move market share. Exclusion of community pharmacies from obtaining such discounts leads to cost shifting, and higher out-of-pocket expenses for outpatients. This can result in poor patient compliance with prescribed medication, and increase overall healthcare costs.

Discussion:

Presently, pharmaceutical manufacturers divide their customers into several classes of trade. These include community retail pharmacies, hospitals, health maintenance organizations, nursing homes, and mail order pharmacies. Purchasing discounts have not been applied evenly to these groups, with pharmaceutical manufacturers generally selling product to community retail pharmacies at a price higher than all other groups.

Some of the differences in discount between classes of trade are appropriate, as they reflect advantages of economy or efficiency received by the manufacturer. Some of the differences appropriately reflect the not-for-profit status of some hospitals. But there are differences in discounts which are obtained simply due to class of trade, discounts for which community retail pharmacy has been denied access.

Other than discounts for not-for-profit institutions, discounts to all pharmacy providers should reflect the economy and efficiency received by the manufacturer in return for the discount. These discounts may include committed volume purchases, prompt payment, single site delivery, and ability to move market share through formulary system management. Community retail pharmacies who present similar economic advantages to other purchasers must be entitled to proportionally similar discounts.

IV. INFORMATION AND ADMINISTRATIVE SYSTEMS

Position:

Information and administrative systems should be included that enhance patient care, eliminate needless bureaucracy, and provide patients and providers with the price and quality information needed to make informed patient-care decisions.

Rationale:

Information and administrative systems that include pharmacists are needed to facilitate efficient, high quality care. Current systems lack integration and limit effective communication between providers.

Discussion:

Provision of higher quality, more efficient pharmaceutical care requires a more effective integration of pharmaceutical care with other components of the health care system. Current legislative and regulatory mandates require pharmacists to review the appropriateness of patients' drug therapy and provide patient counseling services to improve outcomes of drug use. To meet this obligation, pharmacists must have access to pertinent patient-specific information, including: appropriate demographic information and medical history; relevant diagnostic and laboratory data; statement of therapeutic goals or desired outcomes; list of actual or potential drug-related problems; and other therapeutic or clinical monitoring parameters. In addition, the pharmacist must document recommendations about potential therapeutic options and systematically record the services provided.

Many health care providers, particularly in ambulatory care settings, deliver services to patients in isolation from others caring for the same individual. This practice leads to fragmented, duplicative and, in some cases, poor quality care. An integrated information strategy will promote efficiency and increase the quality of care.

Information exchange is also an essential component of efficient administrative (i.e. claim processing) systems. Current health care delivery systems suffer from redundant and non-standardized administration with unnecessary intermediaries in claims management systems. Uniform standards

for pharmaceutical care information and claims administration systems should be established which use electronic technologies and eliminate inefficient administration. Uniform systems would increase quality assurance capabilities and ease exchange of patient-specific information between providers.

V. ECONOMICS OF PHARMACISTS' SERVICES

Position:

Pharmacists' services and proper medication management can generate significant savings in a reformed health care system.

Rationale:

Medications and pharmaceutical care offer an accessible and cost-effective method of treating disease, but only when properly used. The current system lacks incentives and presents obstacles to optimal patient outcomes. The goals of economic reform for pharmaceutical products and pharmacists' services are to: 1) maximize the return on the investment made in expenditures for medications; 2) increase market-based competition in the industry while eliminating cost-shifting between market segments; and 3) alter the incentives for patients and providers to improve drug therapy outcomes. Enhanced systems of cost control and changed models of payment for services could yield considerable savings and marked improvements in patient care.

Discussion:

Over the last ten years the costs of pharmaceuticals have increased at an annual rate of approximately 10%, a rate much higher than the annual increase in the consumer price index. While price controls on pharmaceuticals may reduce expenditures or slow the escalation in the cost of drugs in the short-term, cost controls may have negative effects on the cost of long-term improvements in the prevention and cure of disease. Medication costs are a small portion of health care expenses, but when properly used, medications can prevent more expensive treatments.

Measures to reduce overall health care costs should focus on proper medication use. Nearly one-fourth of all nursing home admissions result from older people being unable to take their medications properly.[2] Competitive market forces should be enhanced in order to moderate the costs of this component of the medical care system and to increase quality performance by providers.

A significant amount of money is spent each year for unnecessary drugs and for treating illnesses induced by inappropriately managed therapy. For example, in 1985 an estimated 243,000 older adults were hospitalized because of adverse reactions to medicines.[3] Pharmacists are prepared to work with prescribers and patients to improve medication use. The transaction-based reimbursement system currently used for outpatient prescription coverage discourages cooperation between physicians, pharmacists, and patients and must therefore be revamped. An alternative system, which includes incentives for patients and providers to use medications more prudently and for pharmacists to manage the costs of therapy, must be introduced. As pharmacists take a more active role in medication management, it is reasonable to expect that they receive a fair reimbursement for their services.

An ideal system would empower pharmacists to: identify the most cost effective drug product which will achieve the intended therapeutic outcome for the patient; insure that the drug regimen is properly selected; and manage the full course of therapy (e.g. patient education and monitoring).

VI. QUALITY ASSURANCE IN THE USE OF MEDICATIONS AND PHARMACY SERVICES

Position:

Quality assurance programs administered by pharmacists can significantly improve the effectiveness of medications in achieving positive patient outcomes.

Rationale:

Delivering quality pharmaceuticals and pharmacy services is beneficial in a health care benefit program for two basic reasons. First, emphasizing a quality oriented approach eliminates errors and the additional costs of having to correct drug use problems. Second, providing quality service increased patient and provider satisfaction with the health care benefit program which in turn has a positive effect on patient health outcomes and quality of life.

Discussion:

Quality assessment and assurance programs and the use of quality management techniques must be incorporated into a medication and pharmaceutical care benefit program to increase quality and decrease the costs of care.

Examples of quality assessment and assurance procedures for medication use include drug utilization review, formulary systems, therapeutic drug monitoring by pharmacists and pre-authorized product interchange. Increased patient education and monitoring by pharmacists and the use of patient outcome analyses are also integral pieces of a quality oriented medication benefit program.

Quality assessment and assurance programs related to individual patient care should be implemented at local levels through the collaborative efforts of healthcare practitioners rather than through centralized systems which cannot address unique patient or provider issues.

All pharmacists should be allowed to participate in patient care networks based on adherence to quality performance standards. Incentives for patients and providers should be built into the network to insure that quality standards are maintained. Professionals who provide direct patient care should be involved in the design and implementation of the quality improvement techniques used in a program.

Moreover, quality oriented programs must recognize local variations in epidemiology, demography, and practice standards and, most importantly, patient-specific information must be held in confidence by all parties.

VII. RELIEF FROM RESTRICTIONS

Position:

Pharmacy providers must be able to negotiate with health benefit plans and to ensure patient access to community retail pharmacy services.

Rationale:

The use of open provider networks for the provision of an outpatient drug benefit under health plans would take full advantage of the truly competitive market that exists among the 60,000 community pharmacies in the United States. As a result, patients would have greater access to quality pharmaceutical services in their neighborhoods.

Discussion:

Modification of federal antitrust laws will enable providers to jointly negotiate with health benefit plans. Certain health plans do need the flexibility to adopt closed panel providerships; however, current inequality exists between plan sponsors and most health care providers. Changes in existing fair trade laws will allow the creation of a system which permits all health care providers, including community pharmacies, to work constructively to offer health care that maximizes the capabilities of the health care delivery system, providing the best quality of care to patients while minimizing the costs.

Footnotes

[1] Poll conducted by Penn and Schoen Associates, Inc., New York, 1993.

[2] Strandberg, LR, "Drugs as a Result for Nursing Home Admissions," *American Health Care Association Journal*, 10 (4): 30, July, 1989

[3] National Center for Health Statistics Advanced Date, No. 140, p.4, September, 1987.

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Publisher *(Name and Complete Mailing Address)*

North Carolina Pharmaceutical Association, P.O. Box 151, Chapel Hill, NC 27514-0151

Editor *(Name and Complete Mailing Address)*

Alfred H. Mebane III, P.O. Box 151, Chapel Hill, NC 27514-0151

Managing Editor *(Name and Complete Mailing Address)*

Terri M. Little, P.O. Box 151, Chapel Hill, NC 27514-0151

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PS Form 3526, Feb. 1989 *(See instructions on reverse)*

AROUND THE STATE

Bill Post, Wentworth, owner and operator of Rockingham Center Pharmacy, was recognized this year with the Governor's Outstanding Volunteer Award.

Prescott Godwin and **Gina House** of Dunn recently opened a new IV service. The new business is called Cape Fear Home Infusion Services Inc.

William T. Sawyer, Hillsborough, was a featured speaker recently at the 51st annual American Society of Hospital Pharmacists meeting in Reno, Nevada. Sawyer's presentation was titled "Systems Thinking Applied to Pharmacy Practice Management." Sawyer is associate professor of pharmacy practice at the UNC School of Pharmacy in Chapel Hill.

Willie H. Jennings, P.D., FASCP, Burlington, and **John F. Harman**, FASCP, Lexington, recently fulfilled the requirements for qualification as a Fellow of the American Society of Consultant Pharmacists (FASCP).

The Fellowship is a special honor bestowed upon pharmacists who have distinguished themselves through exemplary service and accomplishments in a variety of professional and civic endeavors. The Fellowship program promotes public awareness of pharmacists who have attained the highest standards of professional prominence and excellence.

Henry and **Amy (Rich) Bowden** announce the birth of a son. Richard Henry, born on September 24, weighed 8 lbs. 9 oz. Amy, a 1990 graduate of the UNC School of Pharmacy, works at the Medicine Shoppe #1 in Fayetteville.

Melissa Dawn Hartis, Elizabeth City, wed Robert D. Putnam on July 15. Melissa, a UNC School of Pharmacy graduate, works at Revco in Elizabeth City.

NC PHARMACISTS APPOINTED TO APhA POLICY COMMITTEES

Stephen M. Caiola, Chapel Hill, has been appointed chairman of the 1994-95 Policy Committee on Educational Affairs. The committee will focus on professional competency, impact of pharmacists' working conditions on public safety, and professional development of students.

Mary Ann Largen, Charlotte, has been appointed to the Policy Committee on Professional Affairs. The committee's agenda includes continuity of care, capitation payment systems, and adequacy of the directions for use on prescriptions and prescription orders.

The policy committees are comprised of members from 20 states and all segments of the profession. Policy recommendations made by the committes will be considered by the House of Delegates at the 1995 APhA Annual Meeting in Orlando, FL, March 18–22.

NOTICE

Due to the decrease in paid advertising, we will be publishing the *Carolina Journal of Pharmacy* on a bimonthly basis until further notice. We apologize for having to resort to this measure but financial constraints (*a net loss of over $3,000 per issue*) have made it necessary. We will continue to bring you a quality publication—just on a less frequent but more timely basis. Thank you for your continued support and readership.

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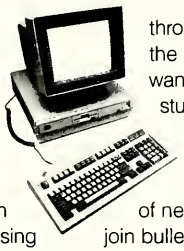

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CORRESPONDENCE COURSE

PATIENT COUNSELING: MANAGEMENT OF MIGRAINE HEADACHE

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, Pharm.D.
Professor of Pharmacy Practice
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to explain the proposed causes of migraine headache, discuss treatment options, and provide patient information.

Objectives

At the conclusion of this lesson, successful participants should be able to:

1. identify suspected etiologic causes of migraine headache;
2. select the factors that may trigger migraine headache in susceptible persons;
3. demonstrate an understanding of the pharmacology and therapeutics of drugs used for abortive, symptomatic, and prophylactic treatment of migraine headache; and,
4. choose from a list, appropriate information to convey to migraine sufferers.

Pathogenesis

The exact cause(s) of migraine attacks is/are not well understood. The *vascular* hypothesis proposes that the headache phase of migraine is caused by vasodilation of blood vessels outside the brain and that the neurologic symptoms are produced by vasoconstriction of vessels within the brain.

The *neural* hypothesis is based on observation that a spreading oligemia (deficiency in blood volume) arises in an occipital lobe of the brain (posterior, base) independent of the major cerebral vessels which precede the symptoms of aura or headache by many hours. This neural hypothesis concludes that migraine with aura is due to an abnormal function of the cerebral cortex rather than to spasm of major cerebral arteries.

A *unified neural and vascular* hypothesis combines cortical and brain stem activity with changes in the cerebral vasculature and neural function. Migraine, according to this theory, may be a state of central neuronal hyperexcitability.

Another hypothesis, disturbed serotonin (5-hydroxytriptamine, 5-HT) transmission, suggests that there is a lowered threshold for initiation of migraine pain in response to predisposing factors (e.g., heredity, stress,

gender, age, hormonal changes) in susceptible individuals. This activates neurons containing serotonin as well as norepinephrine-containing neurons in the brain stem. This activation starts the cascade of events in the migraine episode. Evidence supporting a role for disturbed serotonin neurotransmission in the pathogenesis of migraine is presented in Table 1.

To review the physiologic action of serotonin, first consider the classification of serotonin receptors in Table 2. They are divided into four main types. Within each type are distinct subtypes. Understanding the location of the 5-HT_1 receptors in the cranial vasculature and of the vasoconstrictor action of these receptors has led to development of a new approach to migraine management designed to block pathogenic mechanisms by activating specific receptors, with only minimal adverse effects through stimulation of other receptor subtypes. 5-HT_1 receptor agonists (e.g., ergotamine, sumatriptan) abort migraine attacks and relieve acute symptoms; some 5-HT_2 receptor antagonists (e.g., tricyclic antidepressants, methysergide) are useful in preventing migraine attacks. Potential triggers of migraine are listed in Table 3.

Table 1
Evidence that Supports a Role for Disturbed Serotonin (5-HT) Neurotransmission in Migraine Headache

- During a migraine headache, 5-HT blood levels decrease while urinary concentrations of 5-hydroxyindoleacetic acid (metabolite of 5-HT) increase
- Drugs that deplete 5-HT may trigger a migraine attack
- Intravenously administered 5-HT relieves migraine
- Some anti-migraine drugs have a high affinity for 5-HT receptors
- 5-HT receptors decrease in number with advancing age
- Sleep causes increased firing of serotonergic nerve cells

Management of Migraine Headache

Treatment of migraine headache is challenging because finding the proper therapy for each patient relies primarily on trial and error. Migraine sufferers can be assured that the frequency of their attacks is likely to decrease with advancing age. Female migraine sufferers should be informed that menopause often brings an end to migraine attacks. Some women will benefit from knowing that, contrary to the widespread prejudice, the greater prevalence of migraine in women is hormonal, not psychological.

Nonpharmacologic Treatment

Initial treatment of migraine should focus on nondrug interventions. Approximately 25 percent of migraine sufferers can manage their attacks without drugs, or with minimal medication, by elimination triggers. Relaxation strategies can help some patients abort migraine attacks. Regularly employed, these techniques may also help prevent attacks.

Some patients are helped by biofeedback therapy. Biofeedback techniques permit patients to control autonomic nervous systems functions that are not normally under conscious control. Sleep contributes to the natural recovery process. Patients who sleep well recover from a migraine attack better than those who only rest or doze. At the early onset of an attack, patients should go to a quiet, dark room, where they will not be disturbed, and go to sleep. Some will be helped by applying cold or hot compresses to their head, or massaging or applying constant pressure to the temple on the painful side of the head.

Pharmacologic Management

Among migraine sufferers, those who experience three or more disabling migraine attacks each month are generally considered candidates for preventive medication.

Management of migraine can be ap-

proached from three stand-points. Acute/abortive treatment is used to abort the migraine attack and is initiated early, before the attack has fully developed. Symptomatic treatment is employed to relieve pain, nausea, or vomiting during an established attack. Prophylactic treatment is aimed at reducing the frequency and severity of attacks and is taken on a daily basis.

Acute/Abortive Treatment

The standard drugs used for acute/abortive therapy of migraine are the ergot alkaloids. Currently used drugs are ergotamine, dihydroergotamine and sumatriptan. All three affect serotonin receptors.

As can be seen in Table 2, there are four known types of 5-HT receptors. For migraine attacks, the 5-HT subtype 1A, 1B, 1C and 1D receptors appear to be most involved in the pulsating vasoconstriction/vasodilation and leakage of inflammatory and pain mediators. These chemicals cause the trigeminal nerve to register severe pain resulting in migraine headache.

Ergot derivatives are thought to abort migraine pain through a very complex process that involves the 5-HT(1)-subtype receptors. The therapeutic result of this elaborate activity is an end to vasodilation, pulsating vasoconstriction/vasodilation, inflammation around the sensory nerves, and headache.

Ergotamine and dihyroergotamine can be reviewed together since their actions are similar. They are both agonistic and antagonistic to 5-HT_{1A}, 5-HT_{1B}, 5-HT_{1C}, and 5-HT_{1D} receptors which are present in different tissues outside and inside the brain. They also inhibit alpha-adrenergic and dopaminergic receptors which may contribute to their therapeutic effect. However, these actions may also play a role in their short-term adverse effects (e.g., nausea, vomiting, vasospasm, muscle cramps) and long-term toxicity (ergotism, gangrene).

Ergotamine has a ubiquitous history. Although proven effective for aborting and preventing migraine headache, the peroral (swallowed) dosage form (i.e., Gynergen tablets) has been discontinued. While it is believed that the sublingual and inhalation routes of administration are more effective than peroral, the sublingual dosage forms (e.g., Ergostat) have not made a significant impact and the inhalation dosage form (Medihaler Ergotamine) has been discontinued. Combinations of ergotamine with

Table 2
Physiologic Classification of 5-HT (serotonin) Receptors

Receptor	Effects mediated
5-$HT_{1A,1B,1C,1D}$	Neuronal inhibition of CNS neurons; smooth muscle relaxation, contraction of some vascular smooth muscle
5-HT_2	Neuronal depolarization; vasoconstriction of most blood vessels; bronchoconstriction; contraction of gastrointestinal smooth muscle; platelet aggregation
5-HT_3	Neuronal depolarization leading to activation of autonomic reflexes; neuronal excitation in the CNS
5-HT_4	Gastrokinetic action (cholinergically mediated contraction of ileum); myocardial stimulation; relaxation of esophagus (animals)

From *Neuropharmacology* 25:563-576, 1986

sedatives, hypnotics, antiemetics and anticholinergics have also been removed from the market due to lack of proof of efficacy.

The form of ergotamine that remains on the market and provides needed relief to many patients is in combination with caffeine (e.g., Cafergot, Wigraine). The exact mechanism of caffeine in this combination is not fully known but FDA-approved labeling states that it is "...added to further enhance the vasoconstrictive effects without the necessity of increasing the ergotamine dose."

Dihydroergotamine (D.H.E. 45) is administered intramuscularly. Studies are ongoing to obtain approval for a nasal spray dosage form. The advantages would be rapid onset, with a less invasive route of administration than with an injection.

A professional development program made possible by an educational grant from

SEARLE

Sumatriptan (Imitrex) is the newest entry to the therapy of migraine. Originally available in an injectable dosage form for subcutaneous administration, a tablet dosage form had been approved by FDA and was awaiting marketing at the time this lesson was prepared. Also, a nasal spray form was in clinical trials.

The advantage of sumatriptan over previously available ergot derivatives is its greater selectivity for stimulating 5-HT_{1D} receptors. These are located mainly in the blood vessels in the carotid circulation. By this action it reverses the vasodilation of these large blood vessels, prevent their pulsating vasoconstriction/vasodilation, decreases inflammation around the sensory nerves, and alleviates pain.

Sumatriptan does not appear to exert significant action on the other 5-HT(1)-subtypes, or the 5-HT_2, 5-HT_3, or 5-HT_4 receptors. Nor does it affect alpha-adrenergic, beta-adrenergic or dopaminergic receptors. This is thought to be the reason for its increased safety profile compared to previously available ergot derivatives.

A full discussion of the entire pharmacologic, pharmacokinetic and toxicologic profiles of these agents is beyond the scope of this review, but there are suitable patient information materials available for these products. Paramount is patent compliance. However, for these drugs, excessive dosing is more of a problem than underdosing because few human disorders are more painful than migraine.

A fixed-combination product containing a vasoconstrictor (isometheptene), analgesic (acetaminophen), and sedative (dichloralphenazone), i.e., Midrin, remains on the market. However, this combination is subject to the FDA's drug efficacy (DESI) review. It is approved for relief of tension and vascular headache but is rated "possibly" effective for the treatment of migraine headache pending further study.

Symptomatic Treatment

Many migraine sufferers self-treat their pain with OTC analgesics and do not consult a physician until their attacks become intolerably frequent or severe. Aspirin, acetaminophen and ibuprofen are safe and well tolerated when taken as directed. However, they are not approved for self-treatment of a classic migraine headache which requires medical supervision.

Products containing fixed doses of an analgesic and barbiturate, analgesic and codeine, or all three (e.g., Fiorinal w/Codeine), while not approved for treatment of migraine are used for controlling moderately severe to severe headache attacks.

Several nonsteroidal anti-inflammatory drugs (NSAIDs) have been shown in clini-

cal trials to be effective to relieve migraine headache. There is insufficient proof of efficacy to obtain FDA approval for this indication, but their anti-inflammatory effects seen to help reduce trigeminal pain. NSAIDs are used to both acute/abortive or prophylactic migraine treatments.

The nausea and vomiting of migraine is distressing for many migraine sufferers. Antiemetics prescribed to alleviate these symptoms include the anticholinergics and metoclopramide (Reglan, etc.). Some experts in the field of headache treatment suggest that metoclopramide and a short-acting hypnotic such as alprazolam (Halcion) or zolpidem (Ambien) may be helpful for those patients who previously had good results from Cafergot-PB.

Prophylactic Drug Treatment

For the past two decades, the beta-adrenergic blockers have been the most widely used drugs for preventing migraine attacks. While propranolol was the first beta-adrenergic blocker to be approved officially for prophylaxis of migraine, the once-daily agents (most specifically, atenolol) are frequently prescribed.

The exact mechanism for their prophylactic action has not been determined. One possible explanation is that continuous beta blockade may prevent the pulsatile vasoconstriction/vasodilation sequelae of a migraine attack, thereby preventing the headache.

Calcium channel blockers are also used for migraine prophylaxis. The current theory is that, as with beta-adrenergic blockers, constant vasodilation of the blood vessels that begin a migraine attack prevents the pulsatile vasoconstriction/vasodilation, inflammation and pain.

Antidepressants are sometimes added to the prophylactic treatment of migraine. Again it is difficult to put a handle on their mechanism of action, but antidepressants are known to modify the adrenergic, dopaminergic and serotonergic nervous and vascular systems. There is evidence they alleviate depression by up-regulating and down-regulating receptor activity to restore "balance" and bring the patient's thought process back to normal. Perhaps a similar restoration of "balance" prevents the cascade of events that lead to migraine attacks.

Table 3
Potential Triggers of Migraine

Carbon Monoxide
Poor Sleeping Habits
Drugs, i.e., caffeine, hormones, nitroglycerin
Emotional Stress
Alcoholic Beverages
Foods, i.e., tyramine, monosodium glutamate
Sensory Stimuli, i.e., bright lights, strong odors

At one time, the classic prophylactic agent for migraine was the semisynthetic alkaloid methysergide (Sansert). This is a potent serotonin inhibitor which, while very effective, has the potential to cause serious side effects. It is now considered to be appropriate for use only after all other prophylactic measures have failed, and the migraine attacks are frequent and debilitating.

Patients must be closely monitored on methysergide. There must be at least a one-month drug-free period no less often than every six months of therapy.

Migraine sufferers should understand that prophylactic drug therapies for migraine have limitations as well as benefits. To achieve the greatest benefit from treatment, patients must accept the treatment rationale and be motivated to apply it to their daily activities. They need to be counseled on means to minimize adverse drug effects, and they need to understand that the goal of current drug therapies is to control, rather than cure, migraine.

Patient Advice

Patients with migraine are best served by being referred to a trained specialist in headache control/prevention. When placed on

drug therapy, they should be advised that compliance is imperative from the standpoint of adequate dosing for prophylaxis and avoiding overuse of the drug for treatment.

Patients should be encouraged to maintain a headache/activity log. This helps the patients feel an integral part of therapy. It helps the physician identify trigger factors that cause the attacks. And, it provides a good evaluation of the effectiveness of the prescribed treatment.

Patient Counseling for Imitrex Injection

1. Imitrex is used to relieve migraine attacks.

2. The usual dose is a single injection given just below the skin. It should be given as soon as the symptoms of your migraine appear, but it may be given at any time during the attack.

3. Unless your doctor has told you otherwise, a second injection may be given after at least one hour if your symptoms of migraine are not relieved or come back. DO NOT use more than two injections in any 24-hour period unless directed by your doctor.

4. A detailed leaflet is available with your prescription. Follow its instructions carefully. If you have any questions, ask the pharmacist.

5. If you are using the autoinjector, follow the instruction pamphlet on how to load your syringe. If you have any questions, or do not understand how to use your autoinjector, ask your pharmacist.

6. Dispose of the empty syringes as instructed.

7. Make sure your doctor knows if you have ever had a heart attack or high blood pressure or if you experience any chest pain or shortness of breath while using Imitrex.

8. Tell your doctor if you are taking any other migraine medicine containing ergotamine (e.g., Cafergot, Ergostat, Wigraine) or dihydroergotamine (e.g., D.H.E. 45).

9. FOR WOMEN: Tell your doctor if you become pregnant or plan to become pregnant, or if you are breast-feeding an infant while taking Imitrex.

10. Keep Imitrex at room temperature (below 86°F), in its original, labeled container, and out of the reach of children. DO NOT keep or use outdated medicine.

11. Possible Side Effects. Most patients experience little or no problems while taking Imitrex. Be sure to tell your doctor if any of the following occur: pain or tightness in the chest or throat, wheezing, heart palpitations, swelling of the face or lips, skin rash, or severe dizziness or drowsiness.

Adapted from the Pharmex PALs (patient advisory leaflets). For more information, call 1-800-233-0585.

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CORRESPONDENCE COURSE QUIZ

Patient Counseling: Management of Migraine Headache

1. Drugs which stimulate the 5-HT receptors exert the same action as which of the following transmitters?
   a. Acetylcholine
   b. Dopamine
   c. Epinephrine
   d. Serotonin

2. 5-HT receptor agonists that abort migraine attacks and relieve acute symptoms stimulate which of the following types of receptors?
   a. $5\text{-HT}_{(1)}$
   b. $5\text{-HT}_{(2)}$
   c. $5\text{-HT}_{(3)}$
   d. $5\text{-HT}_{(4)}$

3. Tricyclic antidepressants are used to prevent migraine attacks because they antagonize which of the following types of receptors?
   a. $5\text{-HT}_{(1)}$
   b. $5\text{-HT}_{(2)}$
   c. $5\text{-HT}_{(3)}$
   d. $5\text{-HT}_{(4)}$

4. Sumatripin appears to have its greatest activity on which of the following types of receptors?
   a. $5\text{-HT}_{(1A)}$
   b. $5\text{-HT}_{(1B)}$
   c. $5\text{-HT}_{(1C)}$
   d. $5\text{-HT}_{(1D)}$

5. Which of the following percentages is the closest approximation of migraine sufferers who can reportedly manage their attacks without or with minimal drugs, by eliminating triggers?
   a. 5 percent
   b. 25 percent
   c. 50 percent
   d. 75 percent

6. Which of the following is LEAST likely to trigger migraine attacks?
   a. Alcoholic beverages
   b. Monosodium glutamate
   c. Table salt
   d. Tyramine-containing foods

7. The nerve that is stimulated during a migraine attack which then causes the sensation of severe pain is the:
   a. cranial nerve.
   b. sacral nerve.
   c. trigeminal nerve.
   d. vagus nerve.

8. Which of the following is LEAST likely to be used in preventing migraine attacks?
   a. Alpha-adrenergic agonists
   b. Beta-adrenerglc blockers
   c. Calcium channel blockers
   d. Tricyclic antidepressants

9. The nausea and vomiting of migraine attacks is most likely to be alleviated by:
   a. atropine.
   b. meclizine.
   c. metoclopramide.
   d. prochlorperazine.

10. All of the following statements about migraine are true EXCEPT:
   a. the frequency of attacks is likely to increase with advancing age.
   b. for women, menopause often brings an end to migraine attacks.
   c. lying down in a dark, quiet room and going to sleep is beneficial.
   d. the prevalence of migraine in women is hormonal, not psychological.

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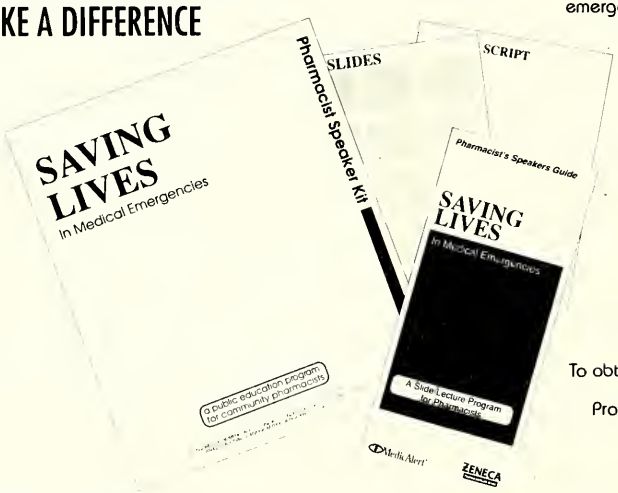

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   a. 17 b. 10-12 c. 3-5 d. 5-7

3. Which amount is the closest to the actual cost of dispensing a prescription in a full-service pharmacy?
   a. $2.00 b. $3.35 c. $6.00 d. $1.25

4. Out of every ten new drugs marketed, on average, how many achieve sufficient revenue to cover costs and make a profit?
   a. 8 b. 2 c. 6 d. 1

5. Considering drug prices and manufacturing wages in the U.S. & Mexico, how long do Mexicans work compared to Americans to pay for Rx drugs?
   a. same # hours b. Half as long c. more than twice as long

6. What is the current estimated cost of bringing a new drug to market?
   a. $175 million b. $359 million c. $500 million d. $100 million

7. Which component of health care costs are patients most aware of because they pay out of pocket?
   a. physician b. prescription c. hospital d. emergency room

8. What percent of sales, on average, is spent on research by research-intensive pharmaceutical manufacturers?
   a. 25 b. 16 c. 8 d. 11

9. Total health care expenditures have risen to almost 13% of GNP since 1960. How have pharmaceutical costs behaved as a % of GNP during that period?
   a. risen to 3% b. fallen to 0.5% c. held nearly constant under 1%

10. If pharmaceutical industry profits were eliminated, how much would this reduce total national health care costs?
    a. 3% b. 5% c. less than 1% d. 10%

Answers: 1 a. 5%; 2 d. 5-7; 3 c. $6.00; 4 b. 2; 5 c. more than twice as long; 6 b. $359 million; 7 b. prescription; 8 b. 16; 9 c. held nearly constant under 1%; 10 c. less than 1%

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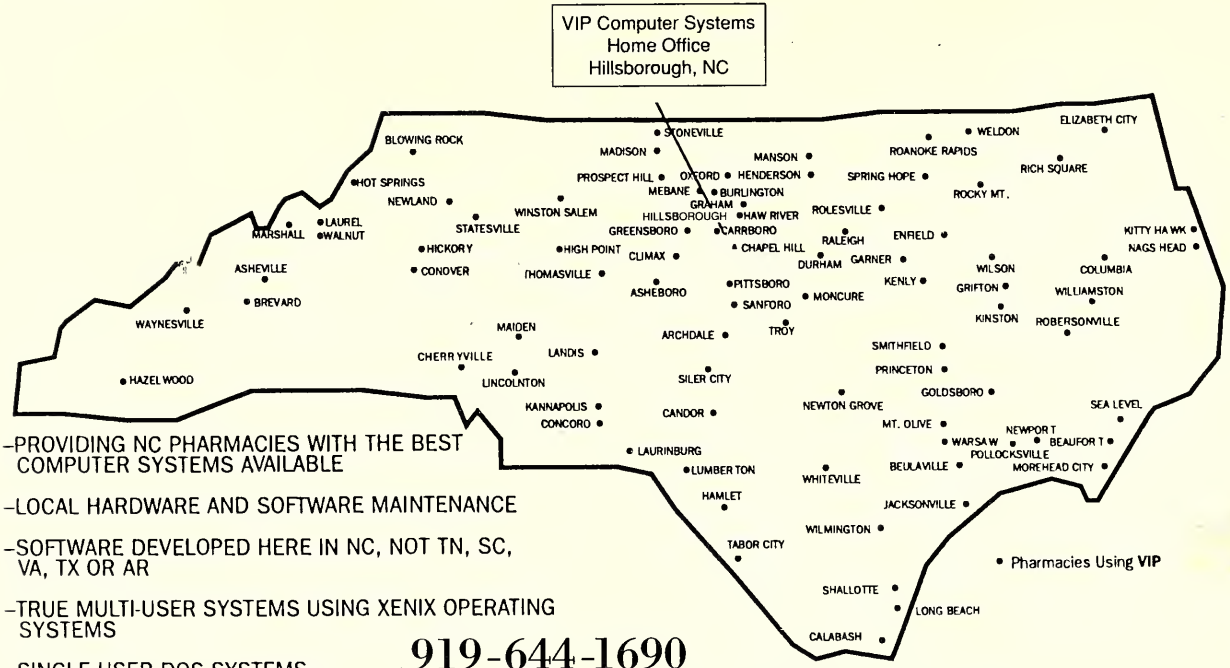

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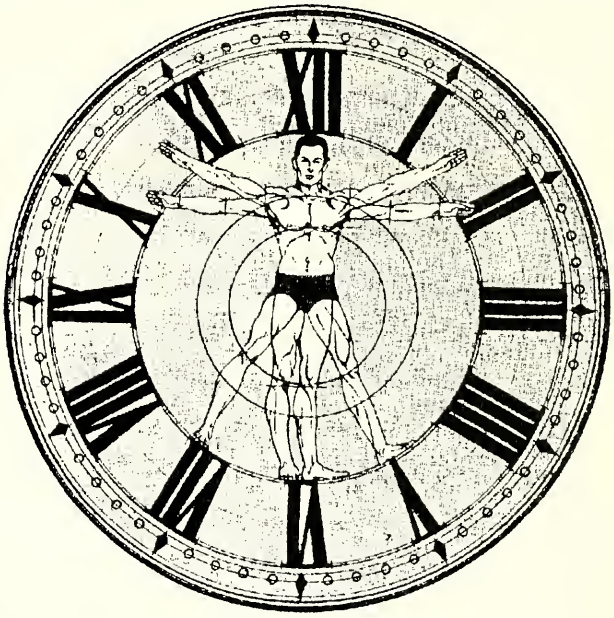

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NCPhA Office
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Chapel Hill, NC 27514
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On the cover: "Adoration of the Magi" (anonymous, Dutch, 15th-16th c., oil with tempera) illustrates Dr. Dennis A. Greene's article on the medical and historical significance of gold, frankincense, and myrrh that appears on page 5. Painting property of the North Carolina Museum of Art, Raleigh, purchased with funds from the State of North Carolina. Used with permission.

Special thanks to the North Carolina Medical Society for granting permission to reprint Dr. Greene's article and for their assistance in obtaining the artwork.

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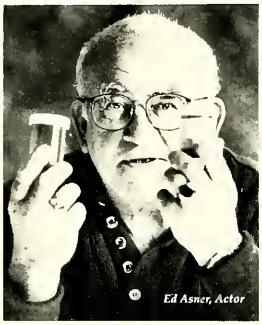

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PRESIDENT'S MESSAGE

TOGETHER WE CAN

The winds of change are howling through America. We see dissatisfaction with the status quo and a renewed commitment to change what is not working. The evidence of this desire for change became crystal clear on November 8, 1994, when American voters ousted the Democratic majority in the US House of Representatives and the US Senate. In addition, the North Carolina House is in the control of Republicans for the first time since 1896. What is also clear is that productivity and fiscal management are taking precedent over empty promises and big government spending.

There are two new mandates for pharmacists that have resulted from the 1994 elections. First, legislative action is more critical now than ever before. There will be many new faces in Congress and the NC Legislature. We need to meet our newly elected officials, invite them to attend our local and state pharmacy association meetings, and tell them the North Carolina pharmacy story. Pharmacy has to tune into the new political programs, rethink our legislative agendas, and form new political alliances. Furthermore, we have very little time to get this done.

Second, we need to get our own "houses" united. Professional unity is the most important challenge facing us. All demographic segments of pharmacy and all pharmacy associations need to come to the table, discuss common ground, and move forward in a coalition that shows strength and progressiveness. The North Carolina Pharmaceutical Association will be the leader of that unity challenge by initiating cooperative agendas with other pharmacy organizations both politically and professionally, and by developing programs which demonstrate to every one of our members that we are an organization of action and achievement.

Joseph A. Edwards Jr.
President NCPhA

Change has a tendency to either weaken or strengthen an organization. I feel that we have a new window of opportunity to move pharmacy to the next level. Everyone has to work to make this happen. Let's resist merely talking about what we are going to do and get out there and do it.

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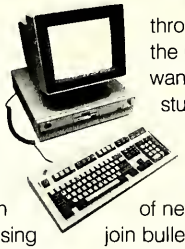

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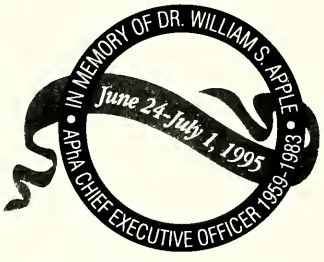

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Program brochures and application forms can be obtained by calling Ann Sullivan, program coordinator, APhA (202) 429-7548 or NCPhA at 1-800-852-7343.

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Gold, Frankincense, Myrrh, and Medicine

by Dennis A. Greene, M.D.

This is the season to remember the story of the three Magi, the Kings who brought gifts to the newborn Jesus in Bethlehem. A *Magus* was a Persian wise man, priest, magician, and ritual healer. The King James version of the birth of Christ relates that three wise men (Magi) came from the East to Jerusalem looking for the Christ child, following the star that they had seen "in the east." In later narrations, the Magi became known as the Three Kings (Balthasar, Melchior, and Caspar) who represented the three regions of the known world encompassed by Christianity: Asia, Africa, and Europe.

Artists throughout the centuries have depicted the now familiar scene, one version of which can be viewed in the collection of the North Carolina Museum of Art, in Raleigh. This 16th-century painting *(see cover)* by an unknown artist of the Dutch School of Haarlem, depicts the Madonna and Child receiving gifts from the three wise men. Painted in the manner of the Northern Renaissance, the painting shows a balanced composition and the Classical architectural style in its buildings. This is reminiscent of Roman dominion over Bethlehem, but it is certainly not a typical manger scene! The windmill in the upper left background clearly discloses the orgins of the artist. The subject of this painting is of particular interest because of its link to medical practice in the ancient world. The three "wise men" brought gifts of gold, frankincense, and myrrh to the newborn child (Matthew 2:11). We know about gold, but what was the significance of the other offerings and from where did they come?

"An interesting biblical reference (John 19:38-39) tells Joseph of Arimathea and Nicodemus, who removed Christ from the cross and prepared him for burial, followed the Jewish custom of wrapping the body in linens and applying aloes and myrrh."

Incense in the Ancient World

Incense was known to all the ancient civilizations and used in rituals and prayers to the gods. Frank ("pure") incense and myrrh were the finest and most scarce, produced only in a small area of the Arabian peninsula. Because of their rarity and great cost, the gifts of the Magi were a sign of wealth an sacrifice. Beyond that, there is medical evidence that gold, frankincense, and myrrh were important adjuncts to wound healing, used by many cultures and societies for thousands of years.

Frankincense (also known as olibanum) and myrrh are gum-resins, products of the sap of two trees that are geographically confined to a microclimatic zone that includes the northeastern part of Somalia and the southern part of the Arabian peninsula, including Yemen and the Sultanate of Oman. These trees are found in their natural state nowhere else in the world, and for millennia, Egypt, Greece, Rome, and the African Civilizations fought and traded for their valuable products.

Two genera of the family of Balsams (Burseraceae), Boswellia and Commiphora, contain trees that produce aromatic gum-resins. Approximately 25 species of Boswellia produce frankincense; Boswellia sacra and carteri, which produce the best frankincense, grow primarily in the southern Arabian peninsula. Myrrh comes from Commiphora, a large genus of some 150 species (formerly known as Balsamodendron), a few of which are good sources of myrrh (Commiphora myrrh is said to be the best). Commiphora species are more widespread in a westerly direction than

Boswellia and are found in Oman, Yemen, and Somalia.

The sap of the trees is harvested by scoring the trunk with a sharp knife, cutting through the bark into the bundles of xylem and phloem. A resinous, opalescent fluid exudes from the cut to form a large, aromatic, milky ball that hardens. It is then broken off and cracked into smaller pieces for transport and sale. Eyewitness accounts of early methods of cultivation and use of the trees can be found in the writings of the Greek historian Herodotus (circa 484-425 BC) and the Greek botanist Theophrastus (circa 372-287 BC) and have not changed much to this day.

A kilogram of frankincense purchased from an Arabian marketplace or *souk* looks very much like a bag full of pale, irregular marbles. Placed in a censer and ignited, the incense burns slowly to produce a perfume (*per fumum,* from smoke). Myrrh is more golden and is gummy because of its high (17%) oil content. Both resins have an extremely sweet, flowery bouquet. That of myrrh is very long lived; still potent samples have been discovered in excavations of Egyptian tombs.

Frankincense and myrrh were known to the Sumerians, Babylonians, Egyptians, Assyrians, Hebrews, Greeks, Romans, and Chinese. According to Majno, the earliest written references date from 2500 BC when, during the Egyptian Fifth Dynasty, the royal purchase of 80,000 "measures" of myrrh was recorded. In 1500 BC, during the reign of Queen Hatshepsut, an expedition from Thebes to the fabled "Land of Punt"—the region of modern Somalia and Yemen around the Gulf of Aden—brought frankincense and myrrh, and the resinous balsam trees that produce them, back to Egypt. However, the trees did not flourish in the more northern Egyptian climate.

Land and sea routes connecting Egypt and Arabia were known before 2000 BC. The trade routes that developed on both sides of the Red Sea depended on a reliable means of long-distance travel across the desert, along the Arabian coast, over the mountains, and across what is now the Sinai Peninsula. The camel, which was domesticated sometime between 2000 BC and 1000 BC proved to be the vehicle that allowed such trade to grow; donkey caravans were unable to penetrate inland because of the scarcity of water along the way. Some of these routes still exist today. For instance, the main highway that runs from the southwestern part of the Sultanate of Oman, parallel to the coastline through Yemen and north along the Red Sea, was once part of the old Incense Route.

Medicinal Uses of Frankincense, Myrrh, and Gold

What were frankincense and myrrh used for? Producing a pleasant scent was, and still is, an important objective, especially where odors of putrefaction, decay, spoilage, and lack of cleanliness prevail. That a pleasant bouquet would be associated with the "good" or "holy" and a revolting smell with the "bad" is easy to understand. So is the burning of incense as offerings to the gods, as when praying for a cure from a disease or relief from an infected wound. Rituals and incantations by priests and shamans merged religion with the earliest medical practices.

Like frankincense, myrrh can be burned for its perfumed smoke but, since it is oiler than frankincense, it can be dissolved in oils or water to take advantage of its texture and very long lasting scent. For instance, it was made into a skin lotion for use as a cleansing oil and perfume, for protecting and moisturizing in hot, dry climates, and for treating skin lesions.

Egyptian embalmers applied myrrh to the linens that were wrapped around mummies because it served both as a preservative and as a deodorant. Frankincense was placed in bags inside the body cavity. An interesting biblical reference (John 19:38-39) tells Joseph of Arimathea and Nicodemus, who removed Christ from the cross and prepared him for burial, followed the Jewish custom of wrapping the body in linens and applying aloes and myrrh.

Myrrh could also be ingested. It was used as a wine additive by the Egyptians, Greeks,

and Romans, whose wine was usually diluted one to five parts of with water. The myrrh added scent, but may also have retarded fermentation. Jesus was offered wine and myrrh as an anesthetic (Mark 15:23) during his crucifixion, but refused it.

As a medicine, myrrh was considered more versatile than frankincense and was used ubiquitously. Aulus Cornelius Celsus wrote in his eight-volume medical encyclopedia, *DeRe Medicina* (25-35 AD), of using myrrh as an anti-inflammatory agent, as an antidote for certain poisons, and as treatment for headache, gout, diarrhea, throat ailments, jaundice, indigestion, fatigue, paralysis, hiccoughs, insect stings and bites, etc. The list goes on.

Cameron postulates that gold, being similar in color to the yellow ochre used by the Egyptians to prepare protective and cosmetic eye ointments, was associated with wound healing and may have been considered as valuable for its potential role in wound repair as it was a symbol of wealth. Holding a gold ball was thought to protect against disease.

Modern Studies

Several contemporary authors have studied the physiological properties of the gum-resins. Claeson and co-workers identified T-cadinol, an active anti-inflammatory compound in myrrh, which also has a spasmolytic effect on smooth muscle. More recently, Duwiejua et al found that gum-resins from both Boswellia and Commiphora species had significant anti-inflammatory activity, comparable to indomethacin and prednisolone in anti-inflammatory qualities. Myrrh has bacteriostatic properties as well, suppressing the growth of Staphylococcus aureus and other Gram-positive bacteria *in vitro*.[2] Considering the numerous anecdotes reporting successful treatment of various internal and dermatological maladies, these attributes are not surprising. Myrrh continues to be used as an ingredient in present-day mouthwashes, toothpastes, hairsprays, perfumes, and toiletries.

Michie and Cooper reported two pediatric cases from Jamaica and London in which frankincense and myrrh had been used. They pointed out that herbal remedies may still be recommended by the so-called "traditional healers" who practice in major metropolitan areas as well as in medically unsophisticated locales.

What's in a Name?

The given names Myron, Myra, Myrrha, and Muriel are said to be derived from the world Myrrh. In Greek they all refer to "the fragrant one." The first Myrrha was a young girl who, so it is said, developed an overpowering sexual attraction for her father. So much in love was she, and so distressed, that she pined away until she was near death. Her father had no idea of the reason for his teenager's depression. Myrrha, with the help of her maid, began to sneak into her father's bed at night, pretending to be someone else. After a few months, Myrrha became pregnant. Her father, discovering the awful secret and furious beyond grief, chased her from the house and into the woods, murder in his heart. At the last moment, Myrrha's cries and prayers to the gods were answered, and she was transformed into a myrrh tree. Her pregnancy continued *in arbo,* and resulted in the birth of Adonis, renowned by his beauty as the lover of Aphrodite. Myrrha's fragrant tears, collected from the bark of her tree, became the substance that is the subject of this paper.

Gold is still popular, but frankincense and myrrh are no longer often laid before Kings. Nevertheless they have had an interesting and lively history and add fragrance to the annals of medicine.

References provided upon request.

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President, Timothy C. Moss, 204 S. Elm Street, Cherryville, 28021,(704)435-6011
Vice Pres., Harry L. Brogden, PO Box 368, Lincolnton, 28093, (704)735-2556
Sec., David Keever, 696 Spring Side Dr., Lincolnton 28092, (704)735-0535
Treas., Ann Keever, same as above

Mecklenburg Pharmaceutical Association
President, Cam Helt, 2316 Blair House Ct., Charlotte, 28270, (704)362-0355
1st Vice Pres., Vickie McLean, 9220 Myrtle Garden Ct., Matthews, 28105, (704)566-9436
2nd Vice Pres., Susan Massaro-Olds, 3825 Mosscroft Ln., Charlotte, 28215, (704)536-6322
Treas., Sally Huston, 7926 Buckfield Place, Charlotte, 28277, (704)846-2898
Sec., Brenda Macri, 6409 Williams Rd., Charlotte, 28215, (704)537-2129

Moore County Pharmaceutical Society
President, Ginger Loving, PO Box 3000 Page Rd.,Pinehurst, 28374, (910)215-1069
Vice Pres., Teresa L. Baker, PO Box 3000 Page Rd., Pinehurst, 28374, (910)215-1068
Sec.-Treas., Ralph Cole,PO Box 3000 Page Rd.,Pinehurst, 28374, (910)215-1068

New Hanover County Pharmaceutical Society
President, Trish Scarlett, 1814 Fordham Rd., Wilmington, 28403, (910)799-7566
Vice Pres., Steve Ipock, 336 Azalea Dr., Wilmington, 28409, (910)799-4157
Sec.-Treas., Tonia LeCroy, 5454 Eastwind Rd., Wilmington, 28403, (910) 395-6089

North Eastern Carolina Pharmaceutical Society
President, Brad Humphries, 403 Magnolia Rd., Camden, 27921, (919)335-1284
Vice Pres., Rhonda Baker, 406 N. Haughton St., Williamston, 27892, (919)792-2445
Sec.-Treas., Margaret B. Carpenter, Rt. 1 Box 292, Belhaven, 27810, (919)964-2600

North West Pharmaceutical Association
President, Ken Becker, 816 Arbor Oaks Drive, Winston-Salem, 27104, (910)768-8134

1st Vice Pres., Mike Brewer, 2106 Polo Road, Winston-Salem, 27106, (910)765-9878
2nd Vice Pres., Julie Kirk, Bowman Gray School, Medical Center Blvd., Winston-Salem, 27157, (910)716-9043
Treas., Bob Moser, 7021 Orchard Path Drive, Clemmons, 27102, (919)766-9853

Person County Society of Pharmacists
President, Kim Frazier, 356 Shiloh Church Rd., Roxboro, 27573, (910)599-3616
Vice Pres., Jamie Huff, Rt. 7, Box 99, Oxford, 27565, (910)597-5030
Sec.-Treas., Joan Floyd, Rt. 1 Box 382, Roxboro, 27573, (910)599-6833

Piedmont Pharmaceutical Society
President, Whit Moose Jr., 8374 W. Franklin St., PO Box 67, Mt. Pleasant, 28124, (704)436-9613
Sec.-Treas., Laura Dillard, PO Box 4113, Concord, 28025, (704)782-2425

Randolph County Pharmaceutical Society
President, Chip Owen, 1450 Westmont Cir., Asheboro, 27203, (910) 625-6294
Vice Pres., Jack Duggins, 1417 Tahyer Dr., Asheboro, 27203, (910)629-1545
Sec.-Treas., Lydia Bulla, 726 Dublin Rd., Asheboro, 27203, (910)626-4035

Richmond County Pharmaceutical
President, Kim Biggers, 925 Long Dr., Rockingham, 28379,(910)417-3000
Vice Pres., Billy Horne Sr., PO Box 31, Hamlett, 28345-0031, (910)582-3585
Sec.-Treas., Greg Marks, 805 Long Dr., Rockingham, 28379, (910)997-4471

Rockingham County Society of Pharmacists
President, Bill Post, 910 Courtland Ave., Reidsville, 27320, (910)349-8624
Vice Pres., Keith Layne, 129 Farrell St., Eden, 27288, (910)623-8200
Treas., Gary Roberson, 544 Morgan Rd., Eden, 27288, (910)623-3132
Sec., Cheryl King, 4901- D Tower Rd., Greensboro, 27410, (910)656-4800

Rutherford County Pharmaceutical Association
President, Ken Hardin, Jr., 1210 S. Church Street, Forest City, 28043, (704)245-7274
Vice Pres., John Higgins, 227 East Main Street, Forest City, 28043, (704)245-6870
Sec.-Treas., Bob Edwards, Rutherfordton Hospital, 308 Ridgecrest Ave., Rutherfordton, 28139, (704)287-5000

Sampson-Duplin Pharmaceutical Association
Inactive

Southeastern Pharmaceutical Association
President, James M. Carroll, 3576 Stacy Circle, Lumberton, 28358, (910)738-8897
Sec.-Treas., Leslie Sanderson, 2510 W. Fifth St., Lumberton, 28358, (910)738-3303

Surry County Pharmaceutical Association
President, Denny Eargle, Rite Aid 1332, Surry Plaza, 1132 West Pine St., Mt. Airy, 27030, (910)789-4003
Sec.-Treas., William D. Lamb, Rite Aid 1332, Surry Plaza, 1132 West Pine St., Mt. Airy, 27030, (910)789-4003

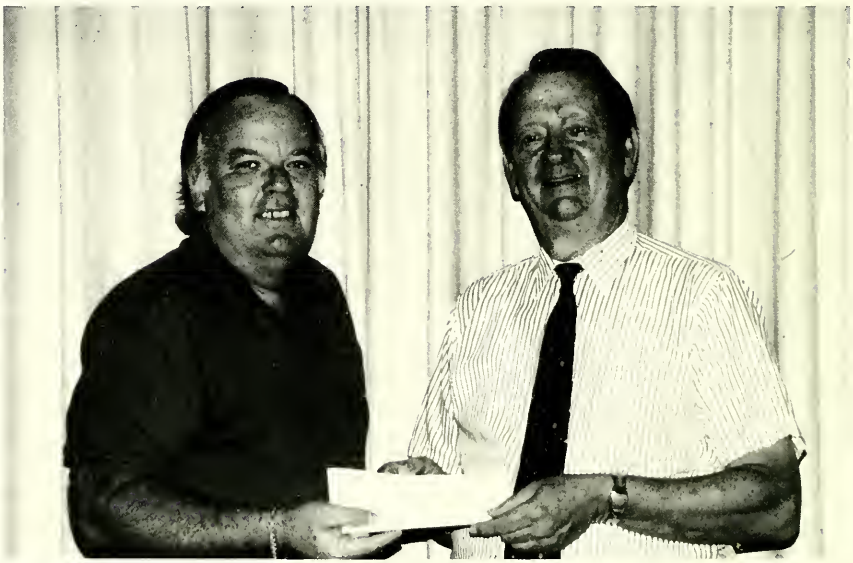
Union County Pharmaceutical Association
President, Frank Catoe, 2009 Catoe Rd., Lancaster, 29720, (803)285-4123
Vice Pres., Andrew Lewis, 2500#B Roundtable Rd., Monroe, 28110, (704)289-8299
Sec.-Treas., Brenda Baxley, 2514 Langsford Rd., Marshville, 28103 (704)624-6345

Wake County Pharmaceutical Society
President, Gray Stewart, 211 Copper Hill Drive, Raleigh, 27606, (919)387-8898
Vice Pres., Anna Wells, 904 Blenheim Dr., Raleigh, 27612, (919)782-0187
Treas., John Myhre, 1005 Park Avenue, Garner, 27529, (919)772-5514
Sec., Susan Alexander, 213 Queensferry Rd., Cary, 27511, (919)467-5421

Wayne County Pharmaceutical Society
President, Sheila Whitehead, 1492 Airport Rd., Pikeville, 27863, (919)778-4783
Vice Pres., Debbie Meyer, 119 Trey Dr., Goldsboro, 27530, (919)734-8028
Treas., Sherry Denning, 40 Harper House Rd., Four Oaks, 27524, (919)778-0660
Sec., Tonya Best, 111 Meadow Lark Rd., Goldsboro, 27534, (919)778-4783

Western Carolina Pharmaceutical Association
President, Tom Allison, 20 Red Oak Dr., Arden, 28704, (704)667-0173
Treas., Ruth Higgins, 35 Hillview Rd., Asheville, 28805, (704)298-0376
Sec., Sharon S. Davis, 283 Beaverdam Rd., Asheville, 255-5149

Wilson County Pharmaceutical Association
President, J. Wayne Avery, 1725 Westwood Ave., Wilson, 27893, (919)237-7343
Treas., Stephen Bennett, 2302 Sulgrave Dr., Wilson, 27893
Corr. Sec., Bill Williams, NC Special Care Center, Wilson, (919)237-7877
Treas., Russell Cowan, 1109 Parkside Dr., Wilson, 27893, (919)291-4958



Raymond James, *left,* secretary-treasurer of the NCPhA Traveling Members' Auxiliary, presents a check for $2,000 for the Consolidated Pharmacy Loan Fund to NCPhA Executive Director Al Mebane.

State and National Pharmacy and Pharmacy Related Organizations

AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY
Carl E. Trinca, Executive Director
1426 Prince Street
Alexandria VA 22314-2841
(703) 739-2330
(703) 836-8982 FAX

AMERICAN COUNCIL ON PHARMACEUTICAL EDUCATION
Daniel A. Nona, Executive Director
311 W. Superior Street, Suite 512
Chicago IL 60610
(312) 664-3575
(312) 664-4652 FAX

AMERICAN COLLEGE OF APOTHECARIES
D.C. Huffman, Jr., Executive Vice President
205 Daingerfield Road
Alexandria VA 22314
(703) 684-8603
(703) 683-3619 FAX

AMERICAN COLLEGE OF CLINICAL PHARMACY
Robert Elenbaas, Executive Director
3101 Broadway, Suite 380
Kansas City MO 64111
(816) 531-2177
(816) 531-4990 FAX

AMERICAN INSTITUTE OF THE HISTORY OF PHARMACY
Gregory Higby, Director
AIHP, Pharmacy Building
425 N. Charter Street
Madison WI 53706-1508
(608) 262-5378

AMERICAN PHARMACEUTICAL ASSOCIATION
John A. Gans, Executive Vice President
2215 Constitution Avenue, NW
Washington DC 20037
(202) 628-4410
(202) 783-2351 FAX

AMERICAN SOCIETY FOR PHARMACY LAW
Donald Dee, Executive Vice President
P.O. Box 2184
Vienna VA 22183
(703) 281-0107
(703) 281-2897 FAX

AMERICAN SOCIETY OF CONSULTANT PHARMACISTS
R. Timothy Webster, Executive Director
1321 Duke Street
Alexandria VA 22314
(703) 739-1300
(703) 739-1321 FAX

AMERICAN SOCIETY OF HOSPITAL PHARMACISTS
Joseph A. Oddis, Executive Vice President
7272 Wisconsin Avenue
Bethesda MD 20814
(301) 657-3000
(301) 652-8278 FAX

ASK THE PHARMACIST INC.
Mary Lynn Bell, President
P.O. Box 4934
Chapel Hill NC 27515
(919) 967-8300
(900) 4200-ASK
(919) 967-8353 FAX

BLUE CROSS/SHIELD OF NC
P.O. Box 2291 (Correspondence)
P.O. Box 35 (Provider Claims)
Durham NC 27702
(919) 489-7431

CAMPBELL UNIVERSITY SCHOOL OF PHARMACY
Ronald W. Maddox, Dean
P.O. Box 1090
Buies Creek NC 27506
(800) 334-4111
(910) 893-1424 FAX

Continuing Education
Daniel W. Teat, Director
P.O. Box 1090
Buies Creek NC 27506
(800) 334-4111, Ext 3101

Drug Information Center
Connie Lee Barnes, Director
P.O. Box 1090
Buies Creek NC 27506
(800) 327-5467; M-F, 8:30 a.m.–4:30 p.m.
(910) 893-1476 FAX

CHAMPUS
Palmetto Government Benefit Admistrators
P.O. Box 100502
Florence SC 29501-0502
(800) 476-8500

CHRISTIAN PHARMACISTS FELLOWSHIP INTERNATIONAL
Fred Eckel., Executive Director
P.O. Box 1667
Buies Creek NC 27506
(910) 814-2014

DRUG ENFORCEMENT ADMINISTRATION
District Office
1801 Stanley Road
Suite 201
Greensboro NC 27407
(910) 547-4219

Regional Office
75 Spring St., SW
Room 740
Atlanta, GA 30303
(404)331-7301

National Office
600 Army Navy Drive
Arlington VA 22202
(202) 307-7255 (registration)
(202) 307-7204

EDS FEDERAL CORPORATION
Fiscal Agent for N.C. Medicaid
4505 Falls of the Neuse Rd.
Suite 200
Raleigh, NC 27609
(919) 790-3004

EQUICOR MEDICARE
P.O. Box 671 (Provider Claims)
Nashville TN 37202
(919) 665-0338 (NC Office)

FOOD AND DRUG ADMINISTRATION
David A. Kessler, Commissioner
5600 Fishers Lane
Rockville MD 20857
(301) 443-2410

Dan Sitko, Supervisor Investigator
Federal Building
310 New Bern Avenue
P.O. Box 25730
Raleigh NC 27611
(919) 856-4474

Drug Quality Reporting System
c/o ERC International
1055 First Street, Suite 130
Rockville MD 20850-9862
(800) FDA-1088

FOOD AND DRUG LAW INSTITUTE
John C. Villforth, President
1000 Vermont Avenue
Washington DC 20005-4903
(202) 371-1420
(202) 371-0649 FAX

GENERIC PHARMACEUTICAL INDUSTRY ASSOCIATION
Lewis A. Engman, President
1620 I Street, NW
Suite 800
Washington DC 20006
(202) 833-9070
(202) 833-9612 FAX

HEALTH CARE FINANCING ADMINISTRATION
Bruce C. Vladeck, Administrator
314-G Hubert H. Humphrey Building
200 Independence Avenue, SW
Washington DC 20201
(410) 966-3000

JEFFERSON-PILOT INSURANCE CO.
Sam Stuart (Agent)
P.O. Box 595
Winston Salem NC 27102
(919) 723-8811
P.O. Box 20727 (Mail Claims)
Greensboro NC 27420-0727
(919) 641-3000

MEDIMET
Metropolitan Life Insurance Co.
P.O. Box 52011
Pheonix, AZ 85072
(315) 792-3882

NARD
Charles M. West, P.D.
Executive Vice President
205 Daingerfield Road
Alexandria VA 22314
(703) 683-8200
(703) 683-3619 FAX

NATIONAL ASSOCIATION OF BOARDS OF PHARMACY
Carmen Catizone, Executive Director
700 Busse Hwy.
Park Ridge IL 60068
(708) 698-6227
(708) 698-0124 FAX

NATIONAL ASSOCIATION OF CHAIN DRUG STORES, INC.
Ronald L. Ziegler, President & CEO
413 North Lee Street
Alexandria VA 22314
(703) 549-3001
(703) 836-4869 FAX

NATIONAL CATHOLIC PHARMACISTS GUILD OF U.S.
John P. Winkelmann, Co-President and Executive Director
1012 Surrey Hills Drive
St. Louis MO 63117-1438
(314) 645-0085

NATIONAL COUNCIL ON PATIENT INFORMATION & EDUCATION
Robert M. Bachman, Executive Director
666 11th Street, NW, Suite 810
Washington DC 20001
(202) 347-6711
(202) 638-0773 FAX

NATIONAL PHARMACEUTICAL COUNCIL
Mark R. Knowles, President
1894 Preston White Drive
Reston VA 22091
(703) 620-6390
(703) 476-0904 FAX

NATIONAL PRESCRIPTION ADMINISTRATORS, INC.
711 Ridgedall Avenue
East Hanover NJ 07936
(800) 526-7813

NATIONAL WHOLESALE DRUGGISTS ASSOCIATION
Ronald J. Streck
1821 Michael Faraday Drive
Suite 400
Reston VA 22090-5348
P.O. Box 238
Alexandria VA 22313
(703) 787-0000
(703) 787-6930 FAX

NONPRESCRIPTION DRUG MANUFACTURERS ASSOC.
James D. Cope, President
1150 Connecticut Avenue, NW
Suite 1200
Washington DC 20036
(202) 429-9260
(202) 223-6835 FAX

NC BOARD OF NURSING
Dr. Carol Osman, Executive Director
3724 National Drive
Raleigh NC 27612
P.O. Box 2129
Raleigh NC 27602
(919) 733-5356

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Raleigh NC 27609
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Carrboro NC 27510
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Kelley Erstine, Executive Director
P.O. Box 12047
1001 Hillsborough Street
Raleigh NC 27605
(919) 832-1222
(800) 662-8754

NC DEPARTMENT OF AGRICULTURE
Food and Drug Protection Division
Robert L. Gordon, Director
4000 Reedy Creek Road
Raleigh NC 27607
(919) 733-7366

NC DEPARTMENT OF HUMAN RESOURCES DIVISION OF AGING
Bonnie Cramer, Director
Caller Box #29531
693 Palmer Drive
Raleigh NC 27626-0531
(919) 733-3983

NC DEPARTMENT OF ENVIRONMENT, HEALTH & NATURAL RESOURCES DIVISION OF ADULT HEALTH SERVICES
J. Dale Simmons, Director
Charles D. Reed, Pharmacy Services
1330 St. Mary's Street
Raleigh NC 27605
P.O. Box 27687
Raleigh NC 27611-7687
(919) 733-7081

DIVISION OF MENTAL HEALTH, MENTAL RETARDATION AND SUBSTANCE ABUSE SERVICES
Michael Pedneau, Director
325 N. Salisbury St.
Raleigh NC 27603-5906
(919) 733-7011

Alcohol and Drug Services
Flo Stein, Assisting Chief
(919) 733-4670

Pharmacy Services
Robert J. Allen, Head
(919) 733-4772

DIVISION OF FACILITY SERVICES
John M. Syria, Director
701 Barbour Drive
Raleigh NC 27603-2002
(919) 733-2343

Health Care Facilities Branch
Jesse Goodman, Branch Head
(919) 733-5794

Licensure Certification Section
Steven J. White, Chief
(919) 733-7461

DIVISION OF MEDICAL ASSISTANCE (MEDICAID)
Barbara Matula, Division Director
C.B. "Benny" Ridout, Pharmacist Consultant
1985 Umstead Drive
Raleigh NC 27603
P.O. Box 29529
Raleigh NC 27626-0529
(919) 733-2833

NC HEALTH CARE FACILITIES ASSOCIATION
J. Craig Souza, Executive Vice President
5109 Bur Oak Circle
Raleigh NC 27612
(919) 782-3827

NC HOSPITAL ASSOCIATION
C. Edward McCauly, President
P.O. Box 80428
Raleigh NC 27623
2400 Weston Parkway
Cary NC 27513
(919) 677-2400

NC MEDICAL SOCIETY
Robert W. Seligson, Executive Director
222 North Person Street
Raleigh NC 27611
(919) 833-3836
(800) 722-1350
(919) 833-2023 FAX

NC NURSES ASSOCIATION
Hazel B. Moore, Executive Director
P.O. Box 12025
103 Enterprise Street
Raleigh NC 27605-2025
(919) 821-4250

NC PHARMACEUTICAL ASSOCIATION
Alfred H. Mebane III, Executive Director
Institute of Pharmacy
109 Church Street
P.O. Box 151 (27514)
Chapel Hill NC 27516
(919) 967-2237
(800) 852-7343
(919) 968-9430 FAX

NC PUBLIC HEALTH ASSOCIATION
Newsom Williams, President
1009 Dresser Court
Raleigh NC 27609
(919) 872-6274

NC SOCIETY OF HOSPITAL PHARMACISTS
P.O. Box 968
109 Church Street (27516)
Chapel Hill NC 27514-0968
(919) 933-6760
(919) 968-9430 FAX
S. Frances Gualtieri, Admin. Director
Fred M. Eckel, Executive Secretary
(919) 962-0034

Career Line
(919) 967-8980 (24 hours)

PAID PRESCRIPTIONS
1900 Pollitt Drive
Fair Lawn NJ 07410
(800) 922-7890

PCS HEALTH SYSTEMS, INC.
P.O. Box 52115 (Mail Provider Claims)
Phoenix AZ 85072-2115
(602) 391-4600
(800) 345-5413

PHARMACEUTICAL MANUFACTURERS ASSOCIATION
Gerald J. Mossinghoff, President
1100 15th Street, NW
Washington DC 20005
(202) 835-3400
(202) 835-3414 FAX

PHARMACY NETWORK NATIONAL CORPORATION
J. Andrew Barrett, Excutive Director
4000 Old Wake Forest Road
Suite 101
Raleigh NC 27609
(919) 876-4642

PHARMA-STAT, INC.
David Corbett, Partner
Laura Burnham, Partner
Nancy Lingenfelser, Secretary
P.O. Box 24973
Winston-Salem NC 27114
(800) 252-STAT

PHARMACIST RECOVERY NETWORK (PRN)
Contact: NCPhA
P.O. Box 151
Chapel Hill NC 27514-0151
(800) 852-7343; M-F; 9:00 a.m.–5:00 p.m.

POISON PREVENTION WEEK COUNCIL
Ken Giles, Secretary
P.O. Box 1543
Washington DC 20013
(301) 492-6580

POISON CONTROL CENTERS

CAROLINAS POISION CENTERS
R. Rose, Director
P.O. Box 32861
Charlotte NC 28232-2861
(800) 848-6946 Outside Charlotte
(704) 355-4000 Inside Charlotte

CATAWBA REGIONAL
William Mixon, Coordinator
Catawba Memorial Hospital
810 Fairgrove Church Road
Hickory NC 28602
(800) 542-4325 (hospital)
(704) 322-6649 (24 hours)

DUKE UNIVERSITY MEDICAL CENTER
Shirley Osterhout, M.D., Director
P. O. Box 3007
Durham NC 27710
(800) 672-1697 (24 hours)

TRIAD
(Alamance, Randolph, Rockingham, Forsyth, & Guilford Counties)
David Wheeler, Director
Moses Cone Hospital
1200 N. Elm St.
Greensboro NC 27401-1020
(800) 953-4001 (24 hours)

WESTERN NORTH CAROLINA
Carole Summerlin, Coordinator
Memorial Mission Hospital
509 Biltmore Avenue
Asheville NC 28801
(800) 542-4225

STATE BUREAU OF INVESTIGATION
James J. Coman, Director
3320 Old Garner Road
Raleigh NC 27610
(919) 662-4500
(919) 662-4523

UNIVERSITY OF NORTH CAROLINA SCHOOL OF PHARMACY
William H. Campbell, Dean
CB #7360 Beard Hall
Chapel Hill NC 27599-7360
(919) 966-1121
(919) 966-6919 FAX

Continuing Education
Betty H. Dennis, Director
(919) 966-1128

SOCIETY OF VETERINARY HOSPITAL PHARMACISTS
Kelli A. Caprile, President
School of Veterinary Medicine
Lousiana State University
Baton Rouge LA 70803-8420
(504) 346-3211

UNC HOSPITALS DRUG INFORMATION CENTER
Maryann Oertel, Director
Department of Pharmacy
101 Manning Drive
Chapel Hill NC 27514
(919) 966-2373; M-F, 8:00 a.m. - 5:00 p.m.

US PHARMACOPEIAL CONVENTION, INC. (USP)
Jerome A. Halperin, Executive Director
12601 Twinbrook Parkway
Rockville MD 20852
(301) 881-0666
(301) 816-8299 FAX

Drug Product Problem Reporting Program
Diane McGinnis, R.Ph., Program Coordinator
(800) 638-6725

Area Health Education Centers and Faculty

AREA L AHEC
1631 South Wesleyan Blvd.
P.O. Drawer 7368
Rocky Mount, NC 27804-0368
Frank Yarborough, B.S.
(919) 972-6958
(919) 972-0419 FAX

CHARLOTTE AHEC
1000 Blythe Blvd. P.O. Box 32861
Charlotte, NC 28232
Howard M. Glazer
(704) 355-3863
Susan Massaro Olds
(704) 355-3870
(704) 355-7825 FAX

COASTAL AHEC
PO Box 9025
Wilmington, NC 28402-9025
Bruce R. Canaday
(910) 343-0161
Kimberly A. Thrasher
(910) 343-0161
(910) 762-9203 FAX

EASTERN AHEC
Department of Family Medicine
ECU School of Medicine
Greenville, NC 27858-4354
Christy Whitley
(919) 816-2611
J. Michael Spivey
(919) 816-2599
Doyle "Skip" M. Cummings
(919) 816-2586
Sandra Hak
(919) 816-3838
(919) 816-5229 FAX

FAYETTEVILLE AHEC
1601-B Owen Drive
Fayetteville, NC 28304
Elizabeth Early, (910) 678-7258
(910) 323-4007

GREENSBORO AHEC
Moses H. Cone Memorial Hospital
1200 North Elm Street
Greensboro, NC 27401
Peter Gal (910) 574-7932
Jack G. Watts (910) 574-7396
Philip R. Diaz (910) 574-7244
(910) 574-7591 FAX

MOUNTAIN AHEC
501 Biltmore Avenue
Asheville, NC 28801
T. Donald Marsh
(704) 257-4467
Barbara A. Kostic
(704) 257-4464
(704) 258-2097 FAX

NORTHWEST AHEC
Bowman Gray School of Medicine (Oles)
Dept. of Family/Community Medicine (Kirk)
Medical Center Blvd.
Winston-Salem, NC 27157-1084
Karen S. Oles
(910) 716-3649
Julienne K. Kirk
(910) 716-9043
(910) 716-7359 FAX (Oles)
(910) 716-9126 FAX (Kirk)

WAKE AHEC
Regional Education Service
3024 New Bern Avenue, Suite G03
Raleigh, NC 27610-1225
Pamela U. Joyner
(919) 250-8018
Martha W. Jones
(919) 250-8018
(919) 250-7963 FAX

NON-AFFILIATED

DUKE UNIVERSITY MEDICAL CENTER
Box 3089, Dept. of Pharmacy
Durham, NC 27710
Roy A. Pleasants
(919) 684-5628
(919) 681-3895 FAX

DURHAM REGIONAL HOSPITAL
3643 North Roxboro Street
Durham, NC 27704
Paige Blackman
(919) 470-4170
(919) 470-7384 FAX

about the directory. . .

THE 1994-95 NCPhA PHARMACEUTICAL DIRECTORY

To be reviewed, checked for accuracy and retained for reference

The Pharmaceutical Directory is provided as a member service by the North Carolina Pharmaceutical Association. This is the fifth issuance of this directory and we try to improve upon the accuracy and resourcefulness of the information with each publication. It contains many of the most frequently requested telephone numbers, addresses and other information about national, state, and local pharmacy organizations, health care organizations, third party administrators, and state and federal government offices.

NCPhA staff has tried to make this list accurate and complete, with the help of many members who provided information. We encourage you to review the directory and notify us at once with any more current information or corrections. We also ask you to suggest additions to the directory for next year's issue. You can contact the NCPhA office at 800-852-7343.

WHO CAN I RELEASE PRESCRIPTION INFORMATION TO?

James A. Boyd

Releasing patient records or profiles to inappropriate individuals and third parties may significantly increase the pharmacist's liability. With the implementation of Pharmaceutical Care accompanied by the rapid growth of computerization of health care records and the current climate for litigation, never before has the need for careful disclosure of patient records been more pertinent. Today most pharmacies have almost immediate access to a wide range of information concerning the patient's medical status. The patient has the right of every consideration of his/her privacy concerning his/her own medical care. The patient also has the right to expect that all communications and records pertaining to his/her care should be treated as confidential.

The "North Carolina Pharmacy Practice Act.," Article 4A of the Medicine and Allied Occupations Statutes has addressed this topic in "Availability of Patient Records" (SS 90-85.36). Basically, the adult patient, prescriber, pharmacist, Board of Pharmacy inspectors, and third party payers may have direct access to the patient pharmacy records. The Act is vague about releasing prescription information when a minor's prescription records are involved.

The Act divides minors into two categories, minors and emancipated minors. Legally, a minor is a person under the age of 18, while an emancipated minor is a person "who is under the age of 18 who is or has been married or who is or has been a parent; or whose parents or guardians have surrendered their rights to the minor's...custody and control." Essentially, the Act views emancipated minors as adults. So, the pharmacist can release prescription records and information to the emancipated minor in the same fashion as he/she would to an adult patient requesting their own profile or medication history. The question arises about minors and parent's/guardian's access to medication profiles of their children (minors).

The minor or unemancipated minor appears in two contexts in this section (SS 90-85.46.(a) 3 & 4). The key issue is whether or not the minor's consent is sufficient to authorize treatment of the condition for which the prescription was issued. The section (a)(4) of the Act indicates that the records can be released to the parents or guardian without the patient's consent if the **minor's consent was not adequate** to authorize the treatment. Section (a)(3) basically says that the records cannot be released to the parents or guardians if the **minor's consent was adequate** for treatment unless the patient gives his or her permission to do so. This leads to the question, are there conditions for which a prescriber may provide treatment to a minor that does not require parent/guardian consent? If so, this part of the Act would indicate that the medications used for these conditions, which subsequently become part of the medication history, could not be released to the parent or guardian without the minor's permission.

In an earlier section of CH.(90) Medicine

and Allied Occupations (SS90-21) treatment of minors is discussed, and is not a part of the **Pharmacy Laws of North Carolina.** Section 90-21.4 says "the physician **shall not** notify parents or guardians without the minor's consent unless essential to life or health of the minor for the conditions listed in 90-21.5. Paragraph 5 includes the prevention, diagnosis and treatment of the following conditions: venereal disease, alcohol and drug abuse, and emotional disturbances.

Combining this section with the Pharmacy Laws Section, which are both in the Medicine and Allied Occupations chapter, it would appear that a minor's consent may be required to release medication profiles to the parent or guardian for therapies for the prevention, diagnosis and treatment of the conditions listed in 90-21.5—venereal disease, alcohol and drug abuse, and emotional disturbances.

The Pharmacy Act also contains an "out clause" (SS90-85.36 (b), which says, "A pharmacist may disclose any information to any person only when he reasonably determines the disclosure is necessary to protect the life or health of any person." This clause allows the pharmacist to release the information on the basis of life or health reasons.

The author would like to indicate that this area has been under significant civil litigation in the past few years, and, as with all case decisions, existing rules and regulations can be modified. However, the sections of law discussed do represent the most current state regulations, and they do provide a basis for direction in this area.

James A. Boyd, Associate Professor, Campbell University

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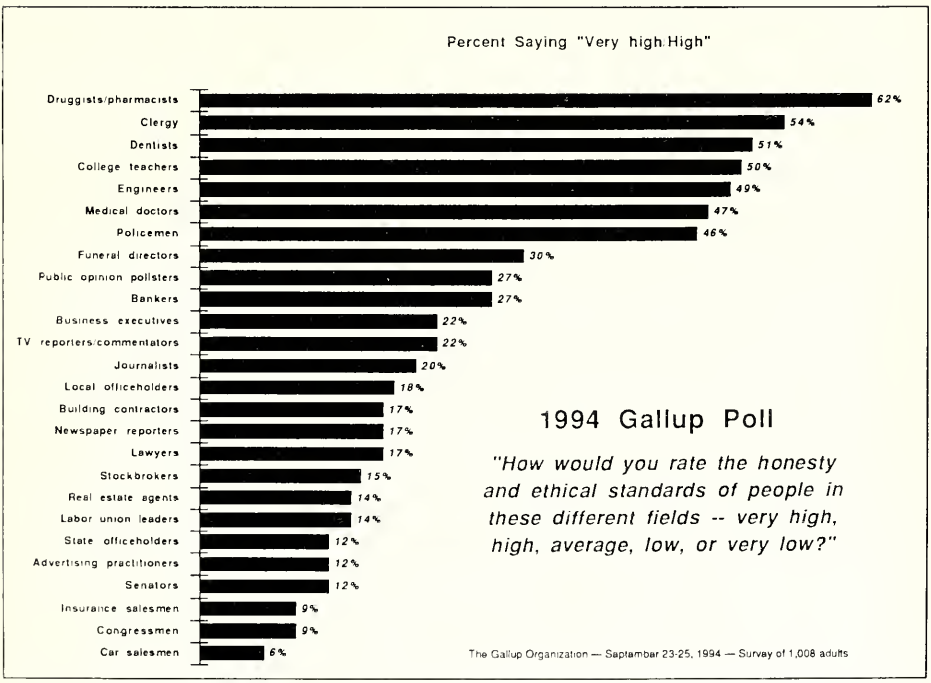
FOR THE SIXTH CONSECUTIVE YEAR PHARMACISTS ARE #1

For the sixth straight time, consumers responding to the Gallup Poll have named "druggist/pharmacists" as the nations's most trusted professionals. A full 62 percent of poll respondents rated the honesty and ethical standards of "druggists/pharmacists" as "very high" or "high," according to the Princeton, New Jersey-based Gallup Organization.

The Gallup Poll asked more than 1,000 adults to rate the honesty and ethical standards of 26 different occupations. Those surveyed gave ratings of very high, high, average, low, very low, and no opinion. The survey was conducted September 23–25.

Druggist/pharmacist received "very high" or "high" ratings from 62 percent of consumers polled, Gallup reported. Members of the clergy placed second in the poll, with combined "high" or "very high" ratings of 54 percent. Dentists, the next most trusted health care professionals, received "high" or "very high" ratings from 51 percent, while college teachers were fourth with 50 percent.



AROUND THE STATE

Julie Connelly, Winston-Salem and **Sandra Hardee Hak**, Greenville, were granted certification in Pharmacotherapy by the Board of Pharmaceutical Specialties. Certification requirements in Pharmacotherapy include: entry-level pharmacy degree, current pharmacy licensure, either 5 years of practice with a substantial component of patient-care activities in pharmacotherapy or completion of a residency or fellowship, and achieving a passing score on the certification examination.

Barry Wester, Williamston, recently spoke to the Williamston Rotary Club about health care reform and pharmacy's past and present.

Jane S. Thompson, FASCP, Winston-Salem, has been elected Region II Director of the American Society of Consultant Pharmacists (ASCP). Thompson is a long-term care consultant pharmacist for Neil Medical Group in Winston-Salem. She will be installed, along with the other newly elected members of the Board of Directors, at the 25th ASCP Annual Meeting and Exhibition, November 9-13 in Boston.

Rebecca Wheeler Chater, Fayetteville, has been chosen as one of twelve pharmacists from around the country to serve on the SmithKline Beecham Community Pharmacy Advisory Board. The board recently met at the SmithKline Beecham Pharmaceuticals headquarters in Philadelphia to discuss the changing needs of community pharmacists and the challenges they face in light of health-care reform, escalating health-care costs, and evolving patient needs.

Dean Ronald W. Maddox of the Campbell University School of Pharmacy has been selected by the American College of Apothecaries to receive its 1995 award for outstanding service to community pharmacy practice. Established in 1991 through an endowment, the award honors annually a Dean of a College or School of Pharmacy selected for outstanding community pharmacy practice. The award will be presented at the 1995 Conference, to be held on May 6 at the Lowes Anatole Hotel in Dallas, Texas.

Births

Henry and Tracey Smith, Farmville, announce the birth of a daughter, Hannah Lilly. Hannah born on October 6, weighed six pounds, ten ounces. Henry, a UNC School of Pharmacy graduate, is co-owner and vice president of Carolina Medical Products and immediate past president of NCPhA.

Weddings

Marcia Ruth Bradshaw, Clinton wed David Allen Shaw, Greenville on September 17 in Clinton. Marcia and David are graduates of Campbell University School of Pharmacy. Marcia is employed by Revco Drug Stores and David is employed by Pitt County Memorial Hospital.

Bryan J. Wyatt and April C. Hinson were married on August 6 in Stoneville. Bryan is a 1994 graduate of the UNC School of Pharmacy and is employed by Revco. April is a student at the UNC School of Pharmacy.

PHARMACY MONTH ACTIVITIES

Land-of-Sky Regional Council's Area Agency in cooperation with the Silvermont Nutrition Site in Brevard and the **Brevard Pharmacy** sponsored a "Brown Bag Event" for older adults on September 16. Participants were encouraged to bring their prescription medications or a list of medications, for review by a pharmacist.

Adam's Drug Store in Marshall held a "Brown Bag Review" on August 26. The goal of the event was for the pharmacist to offer advice on medication interaction and proper usage to older adults.

Beth Skinner, Research Triangle Park, gave a presentation on "Pharmacists in Industry," on October 26 at Campbell University. The program was a part of NCSHP Hospital Specialty Awareness Day.

Jerry Kennedy, Burlington, published "Communication is Good Medication" in the October issue of the *City-County Magazine.*

Margaret Sgritta, Mooresville, spoke to two groups at senior nutrition sites in Mecklenburg County. The topic of her presentation was "Managing Your Medications."

As a part of Pharmacy Month activities, **Austin Lee** of Raleigh, appeared on The Larry Stone Show, WCHL Radio (1360 AM) on October 27.

Southeastern Regional Medical Center published local newspaper advertisements highlighting the importance of the pharmacist in the delivery of health care. In addition, pharmacists from the Southeastern Regional Medical Center made presentations to civic and high school groups.

FACT DAY CALL-IN HUGE SUCCESS

Pharmacy Fact Call-In was held on October 22 as part of Pharmacy Month activities. Pharmacist volunteers answered drug information questions from callers all over the state. Callers learned about the event through newspaper ads, WRAL-TV, and the People's Pharmacy radio show.

Special thanks to **Ann Bemus** and **Christine Goodman** for their efforts in coordinating Fact Day, and to **Lydia Daugherty, MaryAnn Oertel, Angela Wilson**, and **Lisa Chang** for donating their time and expertise during the Fact Day Call-in.

Many thanks to **Mary Lynn Bell**, President, Ask the Pharmacist, Inc., for providing the toll-free phone line, drug information resources, and for use of the facility.

Pharmacy students took time out from their busy schedules to help assemble Pharmacy Month kits.

CORRESPONDENCE COURSE

PATIENT COUNSELING: BENIGN PROSTATIC HYPERPLASIA

Thomas A. Gossel, R.Ph., Ph.D.
Professor of Pharmacology and Toxicology
Ohio Northern University
Ada, Ohio

J. Richard Wuest, Pharm.D.
Professor of Pharmacy Practice
University of Cincinnati
Cincinnati, Ohio

Goals

The goals of this lesson are to discuss the treatment of benign prostatic hyperplasia and present information to convey to patients when counseling them.

Objectives

At the conclusion of this lesson, pharmacists should be able to:

1. identify symptoms of benign prostatic hyperplasia;
2. recognize the hormonal influences that stimulate prostatic hyperplasia;
3. select various treatments for benign prostatic hyperplasia and their pharmacology and toxicology; and,
4. choose from a list, appropriate advice to convey to patients when counseling them on the disorder.

Benign prostatic hyperplasia (BPH) is defined as an enlargement of the prostate gland that occurs with aging. About 25 percent of males will notice a decrease in the force of their urine stream by age 55, and a 50 percent decrease by age 75.

The Prostate Gland

The prostate gland surrounds the proximal urethra at the base of the bladder. It secretes seminal fluid and may also help protect against urinary tract infections through secretion of the prostatic antibacterial factor (PAF).

Prostate size remains relatively stable prior to puberty. Then the gland begins to enlarge rapidly due to androgen stimulation and reaches adult size of about 20 gm by age 20. Its size remains constant until the mid-40s. It then begins to enlarge again, but at a slower rate. As the tissue enlarges through new cell formation (hyperplasia), it can obstruct the bladder outlet. BHP is not caused by the cells enlarging (hypertrophy); rather, it is by new cell development.

Dihydrotestosterone (DHT) is the principal hormone that regulates both normal and hyperplastic prostate growth. Following puberty, androgen receptors become less sensitive to hormonal influence. This limits additional androgen-stimulated growth. With advancing age this decreased sensitivity is

removed. This allows androgen-development growth to continue even when there is a decrease in plasma testosterone

Testosterone production by the testes is controlled by gonadotropin-releasing hormone (GnRH), also known as luteinizing hormone-releasing hormone (LHRH), which is secreted by the hypothalamus. LHRH stimulates the pituitary luteinizing hormone (LH) which, in turn, binds to receptors in the cells of Leydig in the testes where it increases testosterone synthesis. Conversion of testosterone to DHT is catalyzed by the enzyme 5-alpha-reeducates.

Benign Prostatic Hyperplasia

Symptoms of BPH are classed as obstructive and irritative (Table 1). The term *prostatism* describes a number of obstructive and/or irritative symptoms of the micturition process. Generally there is a combination of symptoms.

The major problem associated with BPH is that it obstructs urine outflow from the bladder. The urethra may be blocked partially or completely, creating resistance to outflow of urine. The detrusor muscle of the bladder enlarges. Urinary retention occurs when the muscle can no longer generate sufficient pressure to overcome the increased resistance at the bladder outlet. The degree of bladder obstruction dictates the severity of symptoms. The gland can also enlarge posteriorly to obstruct the colon and cause constipation.

Symptoms worsen over time; some patients appear to improve without surgery or other intervention. Complications associated with BPH include acute urinary retention, recurrent urinary tract infection, irreversible impairment of bladder function, and chronic renal failure secondary to bladder obstruction.

The etiology of BPH is unknown, although several points are established. Functioning testes must be present; eunuchs (castrated males) do not develop BPH. Also, both incidence and prevalence of BPH increase with age.

Prostate size does not always correlate directly with severity of symptoms, and clinical diagnosis of BPH is ordinarily not regarded as an immediate threat to the upper urinary tract or to patient survival. It has been suggested that, for clinical symptoms to appear, there must be an additional acute event, such as prostatic infarction.

Drugs relieve symptoms, but do not modify underlying pathologic changes. Some men with BPH do not seek medical assistance until their symptoms cause significant discomfort or interfere with their quality of life, or their spouse encourages them to do so. These symptoms result from mechanical blockage of the bladder outlet. When irritative symptoms appear in the absence of obstructive symptoms, physicians suspect a pathologic process other than BPH (e.g., bladder inflammation).

Management Considerations

The goal of therapy is to reduce or eliminate the patient's symptoms. Intervention may also prevent progression of the condition and prevent serious complications.

Patients with BPH should not take drugs that can aggravate their condition. For example, anticholinergics, which lessen detrusor muscle contractions, or sympathomimetics, which block relaxation of the internal sphincter, should be avoided. Medications that can exacerbate the symptoms of BPH include both prescription and OTC drug products such as many cough and cold remedies, hay fever products, decongestants, bronchodilators, and appetite suppressants. Warnings to this effect must appear on labels of OTC products containing antihistamines or sympathomimetics.

Diuretic drugs should be limited as much as possible and preferably taken as a single dose early in the day. Fluid intake, including beverages such as alcohol, coffee, tea, and colas should be restricted after the evening meal to reduce the urge to urinate during the night. Retraining in urinary habits, such as allowing several uninterrupted minutes to urinate, is useful.

Several options need to be considered when treating BPH. They include invasive

(instrumental and surgical) and noninvasive (pharmacologic) means. (Table 2)

Pharmacologic Intervention

Treatment of BPH with drugs that reduce the prostate size is now possible. This is good news for those patients who wish to avoid the risk of surgery. Also, there is evidence that pharmacologic intervention can control symptoms in some patients even though they do not affect the size of the prostate. Drugs can be used for patients who do not have an absolute indication for surgery, and for those who are poor surgical risks. The goals of pharmacologic intervention are to reduce adrenergic tone via blockade of adrenergic fibers, and reduce prostate gland size by shutting down hormonal stimulation of the androgenic receptors.

Adrenergic Blockade. Smooth muscle forms a significant component of the prostatic stroma (support tissue). The ratio of stroma to epithelium increases to 2.5 times its normal ration in BPH.

Stimulation of alpha-1 adrenergic receptors initiates smooth muscle contractions in a hyperplastic prostate gland. Their concentration is much greater in the prostate and bladder neck. When activated, they induce urinary retention. Therefore, alpha-1 adrenergic blockade can alleviate symptoms of BPH by relaxing the muscles of the prostate gland, thus decreasing their tone and increasing urinary flow rate. At this point, only terazosin (Hytrin) is FDA-approved for treating the symptoms of BPH.

Phenoxybenzamine (Dibenzyline) was the first drug used for this purpose. It produces long lasting blockade of both alpha-1 and alpha-2 adrenergic receptors. Although phenoxybenzamine improves urinary flow rates, it also causes significant adverse effects such as vertigo and orthostatic hypotension. It is not used in treating BPH today.

Terazosin is a long-acting selective alpha-1 adrenergic blocker shown to produce significant improvement in obstructive symptoms and urinary flow rates. The drug's long half-life allows for once-daily dosing, which should aid compliance. Adverse effects include dizziness, headache, fatigue, and orthostatic hypotension. The latter can be minimized by administering the drug at bedtime. Although the incidence of terazosin-related hypotension is similar in normotensive and hypertensive patients, blood pressure should be monitored during therapy. Acetaminophen may be given prophylactically, one-half hour before terazosin, to lessen the severity of headache. Headaches usually subside spontaneously after several weeks of treatment.

Table 1
Symptoms of BPH

Obstructive
Hesitancy
Post-voiding dribbling
Sensation of incomplete bladder emptying
Decreased or interrupted urine stream
Impaired force of urine stream
Double voiding
Strain or push to urinate
Irritative
Frequency
Nocturia
Painful or burning urination
Urgency

Alpha-1 adrenergic blockers are suited particularly for elderly hypertensive men, since both hypertension and BPH are characteristic at this age.

Hormonal Therapy. Hormone therapy has a single action. It suppresses formation of DHT. It is effective, but clinical utility and patient acceptance are limited by adverse effects, primarily sexual dysfunction. Efficacy is limited because only the glandular epithelium is amenable to hormonal treatment, and this area represents only approximately 30 percent of the prostate gland volume in patients with BPH. Hormonal therapy must also be continuous or the gland will return to its former size.

Luteinizing Hormone-Releasing Hormone. Androgen production can be inhibited by blocking LH release. LHRH analogs, e.g., leuprolide (Lupron) and goserelin (Zoladex), inhibit pituitary release of leutinizing hormone, thus preventing production of testosterone. In addition to reduced prostatic testosterone levels, DHT and 5-alpha-reductase concentrations are also lowered. Unfortunately, in spite of a 95 percent reduction in prostate size in six months, only one-third of the men taking these drugs complain of loss of libido.

Anti-Androgen Therapy. Anti-androgen drugs antagonize the action of these hormones at the target-tissue level by competing for binding sites. Anti-androgens reduce prostatic volume, but do not inhibit production of testosterone. Maintenance of testosterone preserves sexual potency, but adverse effects such as nausea, diarrhea, dizziness, and gynecomastia, are relatively common and bothersome.

Flutamide (Eulexin) inhibits binding of DHT to receptors in the prostate, initiating increased LH and serum testosterone levels. Flutamide is approved only for the treatment of symptomatic prostate cancer when used in combination with an LHRH analog.

Progestational anti-androgens, such as megestrol acetate (Megace) and cyproterone acetate (Androcur), also block DHT receptors and inhibit LH release centrally. Lowered LH release reduces testosterone production which, in turn, reduces serum testosterone concentrations.

5-Alpha-Reductase Inhibitors. Finasteride (Proscar) is the first and presently only 5-alpha-reductase inhibitor available commercially in the U.S. It represents a significant advancement in the hormonal regulation of BPH for men with moderate symptoms.

When 5-alpha-reductase is inhibited, testosterone conversion to DHT is blocked. DHT is the principal and most potent prostatic androgen and stimulus for hyperplastic cell growth and BPH development. Therefore, inhibiting DHT removes the source of glandular stimulation. By inhibiting only DHT

Table 2
Examples of Therapy for BHP

Invasive Intervention

- Open prostatectomy: surgical removal of gland
- Transurethral resection of the prostate (TURP): most common procedure. Cutting away of hyperplastic tissue
- Transurethral incision of the prostate (TUIP): incision made through gland to relieve pressure
- Transurethral dilation of the prostate (TUDP): balloon inserted through urethra and tissue compressed
- Transurethral hyperthermia: tissue destroyed via microwaves
- Laser destruction: tissue destroyed via laser

Pharmacologic Intervention

- Alpha-1 adrenergic receptor blockers: terazosin
- Hormonal therapy
  - LHRH agonists: leuprolide, goserelin, etc.
  - Anti-androgens: flutamide, megestrol, cyproterone, etc.
- 5-Alpha-reductase inhibitors: finasteride

*In addition, behavioral modification will be instituted, such as regular voiding, restriction of fluids after the evening meal, etc.

formation, without interfering with testosterone blood levels, adverse effects associated with generalized androgen blockade are minimized. Since intracellular testosterone concentrations are actually increased, sexual dysfunction is minimized.

Daily dosing with finasteride for six months reduces serum DHT by about 60 percent so that by the end of 12 months of therapy, prostate size decreases about 20 percent and urinary output increases. DHT concentrations return to normal within 14 days following discontinuance of the drug, and the prostate returns to pretreatment size within four months.

A professional development program made possible by an educational grant from

SEARLE

Adverse effects reported in clinical trials to date are related primarily to sexual activity. These include impotence, decreased libido, and reduced volume of ejaculate.

Pregnant women should avoid exposure to crushed finasteride tablet powder. While the probability of absorption through the skin is remote, the possibility of causing abnormalities to the external genitalia of a male fetus exists. These women should avoid contact with the semen of males taking finasteride.

Finasteride is metabolized extensively in the liver. Its potential for interaction with the cytochrome P_{450} enzyme system should be considered. The drug is also highly bound to plasma protein. However, significant drug interactions have not been identified.

Advising Patients

Symptomatic patients should be advised to avoid OTC products that have anticholinergic and/or sympathomimetic action. Such products can exacerbate urinary retention and precipitate acute urinary retention in patients whose symptoms are already severe.

It is recommended that men over the age of 50 receive regular prostate examinations. Early symptoms of prostate cancer mimic those of BHP. Prostate cancer is the third most common cause of cancer-related deaths after age 55. Prostate cancer that is detected and treated early is curable.

Patient Counseling for Hytrin

1. Hytrin is used to treat the symptoms of enlarged prostate, a condition referred to as benign prostatic hyperplasia (BPH). It is also used to treat high blood pressure.

2. Hytrin should be taken with a full glass of water, with or without food. If stomach upset occurs, take it with food.

3. Hytrin may cause you to be drowsy the first few days you take it or when your doctor increases the amount you are taking. If drowsiness occurs, be careful driving or performing hazardous tasks, or drinking alcoholic beverages.

4. Hytrin may cause you to become lightheaded. Sit or lie down at the first signs. Avoid sudden changes in posture. Be careful going up and down stairs.

5. Take Hytrin as instructed at approximately the same time every day. DO NOT skip a dose or stop taking the medication without asking your doctor or pharmacist. They may aggravate the symptoms of BPH.

6. DO NOT take nonprescription (OTC) cough/cold, allergy, sleep aid or diet medications without asking your doctor or pharmacist. They may aggravate the symptoms of BPH.

7. If you miss a dose of Hytrin, take it as soon as possible. But, if it is almost time for your next dose, skip the missed dose and resume your regular schedule. DO NOT take a double dose unless directed by your doctor.

8. Keep this medicine at room temperature, in its original, labeled container, and out of the reach of children. DO NOT keep or use outdated medicine.

9. Possible Side Effects. Most patients experience few or no problems while taking Hytrin. However, be sure to tell your doctor if the following occur: drowsiness, headache, skin rash, nausea, lightheadedness, fainting, chest pain, unusual swelling or weight gain.

Patient Counseling for Proscar

1. Proscar is used to treat enlarged prostate, a condition referred to as benign prostatic hyperplasia (BPH).

2. Proscar should be taken with a full glass of water, with or without food.

3. Take Proscar as instructed at approximately the same time every day. DO NOT skip a dose or stop taking Proscar without asking your doctor.

4. It may take at least 6 months of treatment to determine if you will respond to Proscar.

5. If you miss a dose of Proscar, take it as soon as possible. But, if it is almost time for your next dose, skip the missed dose and resume your regular schedule. DO NOT take a double dose unless directed by your doctor.

6. DO NOT take nonprescription (OTC) cough/cold, allergy, sleep aid or diet medications without asking your doctor or pharmacist. They may aggravate the symptoms of BPH.

7. FOR WOMEN: Crushed Proscar tablets SHOULD NOT be handled by women who are pregnant or who may become pregnant because of the potential risk to a male fetus. Avoid contact with semen of males taking Proscar.

8. Keep this medicine at room temperature, in its original container and out of the reach of children. DO NOT keep or use outdated medicine.

9. Possible Side Effects. Most patients experience few or no problems while taking this medicine. The amount of ejaculate may decrease during treatment with Proscar. This decrease does not interfere with normal sexual function. However, be sure to tell your doctor if you notice a loss of sex drive or become impotent.

Adapted from the Pharmex PALs (patient advisory leaflets). For more information, call 1-800-233-0585.

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CORRESPONDENCE COURSE QUIZ

Patient Counseling: Benign Prostatic Hyperplasia

1. The muscle in the bladder that enlarges in patients with benign prostatic hyperplasia is the:
   a. sphincter muscle.
   b. pelvic muscle.
   c. detrusor muscle.
   d. urethral muscle.

2. The principal hormone that regulates both normal and hyperplastic prostate growth is:
   a. aldosterone.
   b. dihydrotestosterone.
   c. methylprednisolone.
   d. chorionic gonadotropin.

3. Which of the following is LEAST likely to aggravate benign prostatic hyperplasia?
   a. Analgesics
   b. Decongestants
   c. Appetite suppressants
   d. Hay fever remedies

4. The group of antihypertensive drugs that is useful in alleviating the symptoms of benign prostatic hyperplasia is the:
   a. alpha-1 adrenergic blockers.
   b. beta-1 adrenergic blockers.
   c. angiotensin converting enzyme inhibitors.
   d. thiazide diuretics.

5. The group of drugs referred to in question #4 are effective for this use in benign prostatic hyperplasia because they:
   a. increase bladder muscle tone.
   b. increase urine flow.
   c. relax the muscles in the prostate gland.
   d. reduce the size of the prostate gland.

6. Which of the following is a member of the group of drugs referred to in question #4?
   a. Capoten
   b. Vasotec
   c. Proscar
   d. Hytrin

7. Androgen production is most likely to be inhibited by blocking the secretion of which of the following?
   a. Adrenocorticotropic hormone
   b. Follicle stimulating hormone
   c. Human growth hormone
   d. Luteinizing hormone

8. Finasteride exerts its pharmacological action by inhibiting which of the following enzyme systems?
   a. Alpha reductase
   b. Cytochrome
   c. Monoamine oxidase
   d. Carbonic anhydrase

9. Which of the following groups should be advised to avoid exposure to crushed finasteride tablet powder?
   a. Children under 12
   b. Postmenopausal women
   c. Impotent males
   d. Pregnant women

10. Which of the following is classified as an obstructive symptom of benign prostatic hyperplasia?
   a. Frequent urination
   b. Hesitancy when urinating
   c. Nocturia
   d. Painful urination

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Patient Counseling: Benign Prostatic Hyperplasia

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PHARMACIST NEEDED: Expanding, high volume independent pharmacy located in Western NC seeking a young pharmacist to begin in the spring of 1995. Must be an energetic professional with good skills in both human relations and pharmacy practice. Above average financial package. Send resume to: FMC, c/o NCPhA, P.O. Box 151, Chapel Hill, NC 27514.

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Other Positions

MANAGING PHARMACIST WANTED: Pharmacist interested in relocating to metropolitan southeastern location, apply if: skilled in maintaining existing client base; interested in developing new clients; interested in growing into pharmacy management; and seeking full-time employment. Send resume to: PharRez, P.O. Box 37403, Charlotte, NC 28237. Applications considered confidential.

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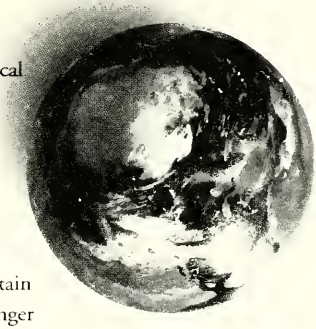

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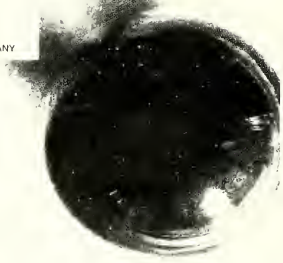

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